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GROWTH PATTERNS IN THE RETAIL GROCERY BUSINESS



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HIGHLIGHTS

MERCHANDISE PROCUREMENT POLICIES of retail firms are determined by their

- structure and organization,
- type of merchandising program,
- sales volume,
- number and location of retail stores, and
- fixed and operating capital.

In recent years, an increasing share of the retail grocery business has been shifting to large stores and firms. Because of this, procurement and selling policies have changed, with both favorable and unfavorable effects on sup-

pliers, small retail competitors, and consumers. This bulletin analyzes some of these changes.

- As population has increased and incomes have risen consumers have been demanding more services with their food purchases. As a result, competition among retailers has shifted from prices to services.

- Costs of retailing groceries have been rising, particularly for labor. To offset this, retailers have tried to improve their methods of buying and selling to attain the lowest unit cost while

SOURCES OF DATA

This study is based primarily upon published and unpublished data, supplemented by interviews with industry leaders and by notes from a week-long conference on the subject of this report participated in by economists from the food industry, universities, and the United States Department of Agriculture.

Experiences of members of industry and economic analysts are relied on for a meaningful interpretation of data.

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still maintaining competitive quality in both products and services.

- There were about 252,000 retail grocery stores in the United States in 1958—136,000 fewer than in 1939 and 99,000 fewer than in 1948. As the stores decreased in number, the size of individual firms and stores grew. By 1958, 4 per cent of the stores made 46 per cent of all grocery store sales—each averaging more than one million dollars in annual sales.

- Single-unit grocery store firms not affiliated with a buying group have been disappearing since 1939. In the nation as a whole, fewer and fewer stores are operated solely with family labor. In California, the decline of these stores has been so rapid that if it continues at the present rate, they will be virtually eliminated in about 15 years.

- Consumers have responded favorably to mass merchandising, giving an impetus to the changeover from small to large stores and firms. The larger firms operate on a relatively low marketing margin, turn over products rapidly, have a large volume of sales per store and carry a wide assortment of products. Through mass merchandising, operators can spread higher total costs over a larger volume of sales. Larger stores, of course, require a greater concentration of capital investment and more workers per store.

- Because sales per store and firm have grown, buying power for all classes

of grocery firms has become increasingly concentrated.

- The number of chain firms increased 42 per cent from 1948 to 1958. Two-to-three store chains increased by 68 per cent, while 4-9 and 10-and-over store chains declined by 10 per cent.

- From 1948 through 1958, the number of stores operated by all chains decreased by 9 per cent. The 4-9 store chains had 11 per cent fewer stores, and the 10-and-over store chains had 18 per cent fewer stores. These declines offset the 58 per cent increase in the number of stores operated by 2-3 unit chains.

- Local and regional chains have grown more rapidly than national chains since 1948. Several local chains have become members of merchandise buying groups to lower their merchandise procurement costs. This trend has been particularly noticeable in California.

- Chains of two or more stores and stores affiliated with buying groups made more than two-thirds of all grocery store sales in 1958. Retailers affiliated with buying groups purchased only about one-third of their merchandise, primarily dry groceries, through their own buying organizations. Because individual stores have formed buying groups, they have strengthened their bargaining position in procuring merchandise.

- Chains and affiliated groups did an increasing amount of their own wholesaling and processing between 1948 and

1958. The proportion of groceries supplied by integrated firms, however, remained about one-half of the total sold through retail stores. This integration back to the sources of supply was done in order to lower merchandise prices and selling costs through volume procurement, a goal not always achieved by the broader operation.

- Integrating to supply sources has served another purpose—it is used to offset restrictive antitrust legislation, particularly the price discrimination provisions of the Robinson-Patman Act.

- Voluntary and cooperative buying groups, perhaps because of a shortage of capital or because decision-making is decentralized, have not integrated back to supply sources as much as chains.

- Mass merchandising has stimulated specification and contract buying, as well as vertical integration. Through contract buying, firms are assured a steady flow of large quantities of uniformly graded products. Vertical integration implies that these firms either do not choose to or cannot get the quantity and quality of products and

services they need through competitive bidding.

- Competition to reduce costs has increased group buying, although there has been less group action in advertising and management service. Group action has taken two forms. In wholesaler-sponsored buying groups, the wholesale firm contracts to supply its affiliated stores with specified merchandise and management services. In retailer-owned buying groups, wholesale warehouses are run cooperatively by member patrons. Between 1948 and 1958, wholesaler-sponsored groups increased their sales 150 per cent, while retailer-owned groups increased their sales 275 per cent.

- Large quantity buying of uniformly graded products favors large farming and processing operations. However, collective action among small operators allows them to offer the quality and quantity of products to attract buyers. Without collective action, small operators are handicapped by limited market outlets and decreased bargaining power in dealing with large buyers.

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RETAIL GROCERY BUSINESS¹

STEPHEN J. HIEMSTRA and D. B. DeLOACH

MERCHANDISE PROCUREMENT POLICIES have changed drastically in the retail grocery business in recent years. The purpose of this study was to determine how procurement policies are formulated, if they are of such importance that they determine the structure of retail firms, and how they affect suppliers, marketing channels, and consumers.

Statistics for this bulletin were drawn largely from the period between 1948 and 1959, since many of the operating procedures learned during World War II were put into practice during these years, even though post-war adjustments were not completed by 1948. During the next ten years food was processed and distributed by new methods, and the composition, geographical distribution, and demands of the buying public changed rapidly. Sudden population increases as well as suburban migration in California make it ideally suited to a study of these new developments in food retailing.

In this bulletin, income, population changes, and the cost and efficiency of retailing food will be analyzed since they have affected demands for different kinds and qualities of products and services. In addition, the organization and operation of the retail grocery business in general will be analyzed, followed by an analysis of its supply functions, including

- changes in sales volume of stores and firms,
- new methods of acquiring, organizing, and allocating resources among and within firms,
- new operating policies associated with structural changes, and
- the institutional environment in which firms operate.

Finally the implications of supply problems for the food marketing system, for farmers, and consumers will be discussed.

FACTORS AFFECTING THE DEMAND FOR FOOD AND SERVICES

POPULATION GROWTH AND REDISTRIBUTION as well as increased real income of consumers have been the primary factors affecting the amount and kinds of food and services purchased by our population (National Resources Committee, 1939).

Population

Population increase requires a corresponding expansion of food supply, assuming the composition of the population, physical environment, and income per capita remain unchanged. Be-

¹ Submitted for publication March 28, 1961. This study is a contribution to Western Regional Marketing Research Project 40.

cause food is relatively perishable and consumers must replenish their supplies frequently and locally, the food industry adjusts its location and other supply functions to the needs of consumers. Since 1929 population growth and movements have caused widespread changing of location and supply functions (table 1, Appendix).

A 43 per cent increase in population from 1929 to 1959 and a particularly rapid growth since World War II brought in their wake a proportionate expansion in food production, processing, and distribution. The population increase of 24.1 million nationally between 1950 and 1959 was largely in the outlying urban fringe and rural nonfarm areas. In fact, the decline of numbers in farm communities was offset by a 3.1 million increase in urban areas (table 1), the latter being almost entirely dependent on the supply of food made available by retail grocery and specialty food stores.

California's population rose 170 per cent between 1929 and 1959. The differential growth rates that have characterized farm, rural nonfarm, urban, and suburban areas in other parts of the country are equally applicable to Cali-

fornia. New and improved equipment and store arrangements have enabled operators to meet the changing requirements of their customers. Since many of the new retail outlets were located in new buildings that were leased or owned by the retail firm, both the building structure and the equipment could be adapted to current needs.

Income

The wants of people must be backed by purchasing power in order to become effective demands. Engel found that, as incomes of consumers go down, people tend to spend proportionately more of their income for food in an effort to maintain their level of food consumption. As incomes rise, they tend to spend more dollars for food but a smaller proportion of their income (Engel, 1931). Schultz has estimated that a 10 per cent increase in per capita income in the United States results in an increase of only 1.5 to 2.5 per cent in food expenditures (Schultz, 1957). This indicates that the income elasticity of demand for food is low but positive.

It appears that the increase in food expenditures associated with an increase in income is largely due to an upgrading of the diet and incorporating more services (for example, precooking and preparation of food, and customer parking) with food products. The income elasticity of demand for such services approaches -1.0, while the income elasticity of demand for food at the farm level is near -0.2² (Bunkers and Cochrane, 1957). This reflects the greater demand elasticity for the marketing services associated with food than for food alone.

Table 2 shows that a relatively high percentage of the total disposable income was spent for food during the depression of the 1930's. The percentage was kept artificially low during World War II due to rationing and price controls. It

Table 1. Civilian Population Change, United States, from April 1950 to April 1959

Place of residence	Population change
	<i>millions</i>
Farm.....	- 3.1
Urban.....	+ 3.1
Central metropolis.....	+0.8
Other urban.....	+2.3
Outlying urban fringe.....	+15.3*
Rural nonfarm.....	+ 8.8
Total.....	+27.2

* Includes the decrease in rural farm population within the outlying urban fringe.

Source: Adapted from U. S. Bureau of the Census, Department of Commerce, *Current Population Characteristics, Civilian Population of the U. S., by Type of Residence*, No. 98 (Ser. P-20):1. Table A. U. S. Government Printing Office, Washington, D.C., January 1960.

² The elasticity of demand for food marketing services has been estimated to be between -.75 and -1.5 by other authors, using varying methodologies.

Table 2. Consumer Expenditures for Food, United States, 1929-1959

Year	Expenditures on food*		Total per capita disposable income	Food as per cent of total expenditures
	<i>billions of dollars</i>	<i>dollars per capita</i>	<i>dollars</i>	<i>per cent</i>
1929.....	19.5	160	682	23.5
1930.....	18.0	146	604	24.2
1931.....	14.7	119	515	23.0
1932.....	11.4	91	390	23.4
1933.....	10.9	87	364	23.9
1934.....	12.2	96	411	23.4
1935.....	13.6	107	459	23.4
1936.....	15.2	119	517	23.0
1937.....	16.	127	551	23.0
1938.....	15.6	120	506	23.8
1939.....	15.7	120	538	22.3
1940.....	16.7	127	576	21.9
1941.....	19.4	146	697	20.8
1942.....	23.7	176	871	20.2
1943.....	27.8	204	977	20.8
1944.....	30.6	221	1,060	20.8
1945.....	34.1	244	1,075	22.7
1946.....	40.7	288	1,136	25.4
1947.....	45.8	318	1,181	26.9
1948.....	48.2	329	1,291	25.5
1949.....	46.4	311	1,271	24.5
1950.....	47.4	313	1,369	22.8
1951.....	53.4	346	1,473	23.5
1952.....	55.8	356	1,520	23.4
1953.....	56.6	355	1,582	22.4
1954.....	57.7	355	1,582	22.4
1955.....	59.2	358	1,660	21.6
1956.....	62.2	370	1,742	21.2
1957.....	65.2	381	1,804	21.2
1958.....	67.4	388	1,826	21.3
1959†.....	68.6	388	1,905	20.8

* Excluding alcoholic beverages.

† Preliminary.

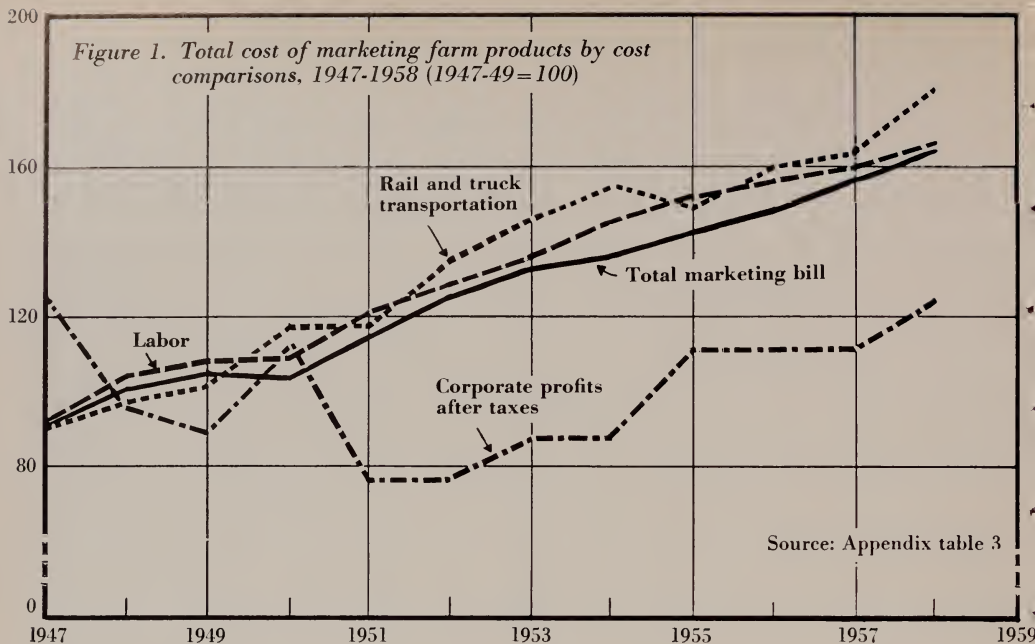
SOURCE: United States Department of Agriculture *Supplement for 1959 to Consumption of Food in the United States, 1909-52*. Agricultural Handbook 62:38-40 U. S. Government Printing Office, Washington, 1959.

rose rapidly after price controls and rationing were removed in 1946, but started down in 1949 as food became abundant and disposable income rose. These data also support Engel's theory which was cited above. In recent years, an increasing share of consumers' expenditures for food products has been for more marketing services.

Per capita disposable income increased 125 per cent between 1929 and 1957. However, during this period, the price level of food rose 76 per cent and

the average level of consumer prices rose 64 per cent. Deflating by these two measures of price inflation leaves only a 28 or 37 per cent rise, respectively, in real disposable income per capita. This amounts to about 1 per cent a year. Because of the low income elasticity of demand for food, this moderate increase in real income has been a lesser factor in increasing the demand for food than the increase in population.

The demand for marketing services is important in determining the prices of



different food products. The cost of such services is allocated among the various food products by means of the retailer's pricing system, which is based largely on what the market will bear. This affects food prices and the relative demands for different kinds and qualities of food products. Since marketing costs have such an important influence on food prices, the ensuing discussion deals briefly with some of the major cost components in the marketing bill.

Food Prices and Marketing Costs

The total marketing bill³ for farm products rose 64 per cent from the 1947-1949 base period through 1958 (figure 1).

It is assumed that approximately the same per cent change would apply to food alone as that which applied to the total marketing bill. The rise in the total cost of marketing food reflects a 27 per cent increase in the sales of food products and an increase of 34 per cent in the unit costs of moving food through processing and distribution channels

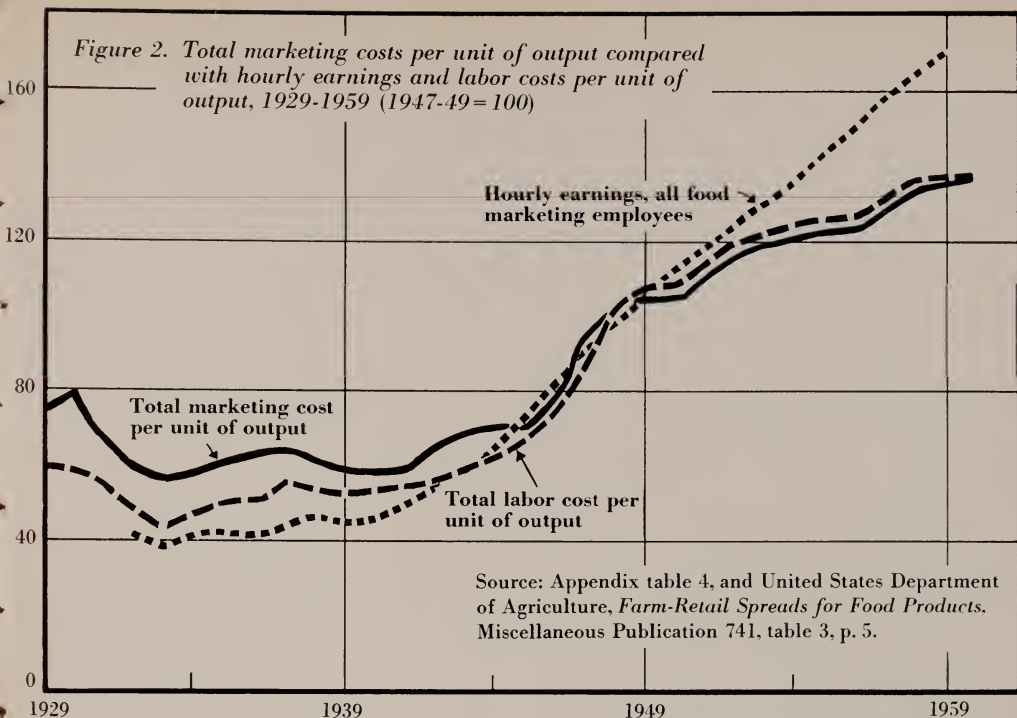
(U. S. Department of Agriculture, 1959).

Since the 1947-1949 base period, the hourly earnings of labor have increased roughly one half more than the cost rates of other inputs (figure 2).

The rise of 65 per cent in the price of labor in food marketing (excluding fringe benefits) is practically the same as the 67 per cent rise in labor costs per unit of output (figure 2). Ogren and Parr (1955) associate a part of the rise in unit labor costs with an increase in the amount of food processing and other consumer services which require more labor per unit of product. Any rise above that attributable to added services would seem to be caused by wages rising faster than productivity. Regardless of the cause, such a rise in costs of marketing influences the total cost of products to the retail store, and must be taken into consideration in pricing the products to consumers.

The matter of labor rates and other costs will be discussed in greater detail later in this report.

³ This includes payments to agencies that assemble and process food and perform other functions needed to supply such products to consumers in the form they desire.



RETAIL FOOD STORE SALES

THE FOREGOING DISCUSSION was concerned with the two basic determinants of the demands for food and services sold with food, namely, the number of consumers and the ability of those consumers to pay for food and services. This section deals with consumer expenditures in different classes of food stores in the United States and California.⁴ The assumption is that the relative demands for food and grocery store services are

best reflected in the sales data for food stores offering various combinations of food and marketing services. Another assumption is that consumer purchases from retail food stores are an indication of their preferences for different qualities of products and merchandising methods, which is an important guide to merchants planning new or modernizing old stores, and changing procurement and merchandising methods.

⁴The ownership classification includes four units. *Chains* are horizontally integrated retail grocery firms with two or more outlets under a common ownership and control. Such chains often acquire ownership or control of their supply sources. *Wholesaler-sponsored voluntary retail groups* are composed of independently owned retail firms that are contractually associated with a wholesale firm for their supplies of merchandise and some management services. *Retailer-owned cooperative buying groups* are member-owned nonprofit wholesale establishments through which members buy a part of their supplies and receive some management advisory services. *Independents* are single retail outlets that are not affiliated with any other store in terms of ownership or merchandise supply arrangements.

Classification by size includes: *Supermarkets*, sales of more than \$375,000 annually; *Superettes*, sales of \$75,000 to \$375,000 annually; and *Small stores*, sales under \$75,000 annually.

Merchandising methods include *Service* and *Self-service* stores.

Table 3. Total Food and Grocery Store Sales, California, 1929-1958

Year	Grocery store sales				Deflated grocery store sales*			
	Total food store sales	Specialty food store sales	Total	Total food	U. S. sales	Disposable income	Per dollar of payroll	Total
	1	2	3	4	5	6	7	8
	million dollars		million dollars		per cent		dollars	million dollars
1929.....	657	218	439	66.8	6.0	8.2	13.9	669
1939.....	784	207	577	73.6	7.5	11.3	13.6	1,225
1944.....	1,533	313	1,220	79.6	†	9.8	14.3	1,810
1948.....	2,637	410	2,227	84.5	9.0	14.5	13.9	2,139
1949.....	2,720	419	2,301	84.6	....	14.5	13.8	2,301
1954.....	3,868	576	3,292	85.1	9.6	13.9	12.1	2,924
1957.....	4,663	541	4,122	88.4	11.0	13.7	11.0	3,572
1958.....	4,949	519	4,430	89.5	11.5	....	11.2	3,682
								thousand dollars
								dollars
								26.2
								37.2
								41.2
								40.5
								43.9
								42.7
								44.0
								45.0
								26.4
								71.5
							
								127.5
								137.8
								201.2
								261.6
								275.3

PER CENT CHANGE, 1948-1958

* Deflated by U. S. Retail Food Price Index (1947-1949 = 100).
† Blanks indicate data not available.

Sources:
Columns 1 and 3: 1929: U. S. Bureau of the Census, *Fifteenth Census of the U. S.: 1930; Distribution: Retail Distribution* (Washington: Govt. Print. Off., 1934), Vol. I, Part II, p. 155; 1939: *idem.*, *Sixteenth Census of the U. S.: 1940; Census of Business, Retail Trade: 1939* (Washington: Govt. Print. Off., 1943), Vol. I, Part I, p. 196; 1948: *idem.*, *U. S. Census of Business: 1948; Retail Trade—Area Statistics* (Washington: Govt. Print. Off., 1951), Vol. II, Part I, pp. 5-29; 1958: *idem.*, *1958 Census of Business, Retail Trade* (Washington: Govt. Print. Off., 1960), pp. 1-45; 1944 and 1957 computed from California State Board of Equalization, *Trade Outlets and Tenable Retail Sales in California* (Sacramento: State Print. Off., quarterly, 1946-1958), with adjustments based on data from California State Chamber of Commerce and U. S. Census of Business. (See Appendix A for a description and comparison of the data.)
Column 2: Column 1 minus column 3.
Column 4: Column 3 divided by column 1.
Column 5: Column 3, Appendix, table 5, and *Annual Retail Trade Report* (Washington: Govt. Print. Off., 1957).
Column 6: Column 3 and Appendix, table 2.
Column 7: Column 3 and table 12.
Column 8: Column 8 and Appendix, table 1.
Column 9: Column 8 and table 12.
Column 10: Column 8 and table 12.
Column 11: Column 8 and table 8.

Table 4. Per Cent of Disposable Income Spent in Food Stores, 1929 and 1957

Type of store	1929		1957	
	California	United States	California	United States
	per cent			
Grocery stores.....	8.2	8.8	13.3	13.6
Specialty food stores.....	4.1	4.2	1.7	1.2
Total food stores.....	12.3	13.0	15.0	14.8

SOURCES:
California: Compiled from table 3 and Appendix, table 2.
United States: Compiled from U. S. Bureau of the Census, *Fifteenth Census of the U.S.: 1930; Distribution; Retail Distribution* (Washington: Govt. Print. Off., 1934), Vol. 1, Part I, p. 47; *idem.*, *Annual Retail Trade Report, 1957* (Washington: Govt. Print. Off., 1957), p. 5 with adjustments made on the basis of the 1958 U. S. *Census of Business*; and, U. S. Department of Agriculture, *Supplement for 1958 to Consumption of Food in the U. S., 1909-52* (Agricultural Handbook No. 62) (Washington: Govt. Print. Off., 1959), p. 36.

Grocery and Food Store Sales⁵

The ratio of grocery store sales to total food store sales has been increasing steadily over the past 29 years, according to the *United States Census of Business*. California's grocery store sales accounted for only 67 per cent of total food store sales in 1929, but this increased to 90 per cent in 1958 (table 3).

Apparently there has been a substantial shift of sales from specialty food stores to grocery stores during this period.⁶ The shift has been rather steady, but it was slower between 1948 and 1954 than between any other two census years. Sales of specialty food stores reached a high of \$576 million in 1954 and in the next four years decreased by 10 per cent. This represents a 16 per cent decline after deflation by the United States Re-

tail Food Price Index, compared with an increase of 26 per cent in deflated grocery store sales during the same period.⁷

Meanwhile, the population of the state increased by 18 per cent. Between 1948 and 1958, a 27 per cent gain in sales of specialty food stores compared with a 98 per cent increase in sales of grocery stores and a 46 per cent increase in population. The shift in sales from specialty food stores to grocery stores thus represents a large source of the sales gain by grocery stores between 1929 and 1958 (table 4).

Total consumer purchases of food, including the imputed value of home-grown food, were much greater than were total expenditures in all food stores in 1929 and 1957. This indicates that a substantial share of food was purchased

⁵ The definitions of these terms conform to the ones used by the *United States Census of Business*. In 1958 *food stores* included all establishments primarily engaged in selling food for home preparation and consumption (Standard Industrial Classification 54). It included grocery stores, meat and fish (seafood) markets, fruit stores and vegetable markets, candy, nut, and confectionery stores, dairy product stores, retail bakeries, and miscellaneous food stores, SIC 541-546 and 549, respectively. *Food store sales* included all sales made by *food stores*, including sales of both food and nonfood products. Similarly, grocery store sales included sales of both food and nonfood products.

⁶ The term *specialty food stores* will be used to refer to all food stores other than grocery stores.

⁷ Since 1929, food prices have increased by 88 per cent, according to the United States Retail Food Price Index; the increase has been 15.6 per cent since 1948. In view of this price inflation it is desirable to deflate sales figures in making comparisons over time. Food prices in California are not necessarily equal to those in the rest of the United States; but relative prices are expected to change in roughly the same proportion. So, use of the United States Retail Food Price Index is appropriate as a deflator, and will be used as such throughout this study.

Table 5. Grocery Store Numbers and Sales, by Size of Sale Classes, 1948, 1954, and 1958*

Year	Sales size of store	Number of grocery stores			Sales of grocery stores		
		California	United States	California	United States	California	United States
		number		per cent of total		million dollars	
		thousand dollars		per cent of total		per cent of total	
1958	5,000 and over.....	1,133	96	8.9	†	2,347	640
	2,000-4,999.....		2,888				
	1,000-1,999.....		7,348				
	500-999.....		9,092				
	300-499.....		8,369				
	100-299.....		39,422				
	less than \$50.....		130,035				
1954	5,000 and over.....	678	6,242	4.9	2.3	1,331	10,723
	2,000-4,999.....		7,507				
	1,000-1,999.....		7,711				
	500-999.....		40,398				
	300-499.....		55,093				
	100-299.....		149,787				
	less than \$50.....		1,911				
1948	5,000 and over.....	1,739	5,360	12.2	0.6	1,123	2,757
	2,000-4,999.....		6,197				
	1,000-1,999.....		36,222				
	500-999.....		60,916				
	300-499.....		215,595				
	100-299.....		1,739				
	less than \$50.....		3,168				
	5,000 and over.....	+69	+441	22.3	11.1	522	5,774
	2,000-4,999.....		+70				
	1,000-1,999.....		+35				
	500-999.....		+9				
	300-499.....		-36				
	100-299.....		-23				
	less than \$50.....		-40				

PER CENT CHANGE, 1948-1958

* Establishments operated entire year. All data for United States and 1955 data for California include delicatessens.

† Less than 0.1 per cent.

SOURCE: Compiled from U. S. Bureau of the Census, *U. S. Census of Business—1943 and 1958*. (Washington: Govt. Print. Off.)

through nonfood stores, such as general stores, drug stores, and department stores, and in prepared form through hotels, restaurants and institutions (HRI). However, the sales of food stores also included a growing share of sales of nonfood items. As a result of the shift of customers and sales from specialty to grocery stores, expansion of grocery stores has increased at a faster rate than can be accounted for by population growth and income changes only. Shifts in consumer patronage from one kind of food store to another also affect wholesale suppliers to the extent that different retailers buy from different wholesalers.

Sales Size of Grocery Stores

The change in number and sales of grocery stores in sales categories of various sizes is given in table 5. The number of such stores selling in excess of one million dollars annually increased more than fourfold and their sales increased more than sixfold between 1948 and 1958. The rate of growth declined by size groups down to the \$100,000 annual sales level, a level which seemed to mark

the boundary between growth and decline. The number and sales of smaller stores declined by more than one-fourth in spite of a 20 per cent increase in the price of food. By 1958, about 45 per cent of total grocery store sales was made in stores selling one million dollars or more compared with about 11 per cent in 1948. Twenty per cent of all grocery store sales in 1958 were made by stores selling two million dollars or more annually.

In both 1954 and 1958, the percentage of stores with sales in excess of one million dollars in California was double that for the United States. Only about one-third of California grocery stores sold less than \$50,000 in 1958 compared with more than one-half in the United States.

On the average, the grocery stores operated by single-unit firms in the United States in 1958 sold less than one-tenth as much per store as the large chains (table 6). The average size of store increased with the size of firm up to the 26-50 store chains and then decreased slightly.

The grocery chains with 26 or more

Table 6. Sales Per Grocery Store, by Size of Firm Classes, 1948, 1954, and 1958*

Number of stores per firm	Sales per grocery store							
	California			Increase, 1948-1958	United States			Increase, 1948-1958
	1948	1954	1958		1948	1954	1958	
	thousand dollars			per cent	thousand dollars			per cent
Average, all stores....	130	227	323	148	66	123	168	155
1.....	82	124	162	98	42	70	88	110
2-3.....	231	503	691	199	154	299	420	173
4-10.....	552	1,013	1,450	163	315	629	797	153
11 and over.....	588	1,087	1,491	154	378	802	1,090	188
11-25.....	...	...	...	...	...	...	940	...
26-50.....	...	...	...	...	...	...	1,153	...
51-100.....	...	...	...	...	...	...	1,118	...
101 and over.....	...	...	...	...	...	...	1,097	...

* Establishments operated entire year. Data for 1958 include delicatessens.

SOURCES: Compiled from U. S. Bureau of Census, *U. S. Census of Business—1948, The Grocery Trade* (Washington: Govt. Print. Off., 1952), pp. 102-109 (Trade Series, Bull. No. 3-1), *idem.*, *U. S. Census of Business: 1954; Retail Trade—Summary Statistics* (Washington: Govt. Print. Off., 1957), Vol. 1, p. 4-2, *idem.*, *U. S. Census of Business: 1958; Retail Trade, Single Units and Multiunits* (Washington: Govt. Print. Off., 1960), pp. 4-36.

Table 7. Distribution of Grocery Store Sales, 1948, 1954, and 1958*

Number of stores per firm	California			Change 1948-1958	United States			Change 1948-1958
	1948	1954	1958		1948	1954	1958	
	per cent							
Total.....	100.0	100.0	100.0	..	100.0	100.0	100.0	..
1.....	55.5	47.3	43.0	-23	58.8	51.8	47.0	-20
2-3.....	5.0	8.7	8.1	62	3.6	4.8	4.8	33
4-10.....	6.6	9.0	9.0	36	3.2	4.0	4.2	31
11 or more.....	32.9	35.0	39.9	21	34.4	39.4	44.0	28
11-25.....	....	....	....	..	....	....	3.3	..
26-50.....	....	....	....	..	....	....	4.4	..
51-100.....	....	....	....	..	....	....	4.0	..
101 and over.....	....	....	....	..	....	....	32.3	..

* Establishments operated entire year. Data for 1958 include delicatessens.

Sources: 1948 and 1954: Compiled from U. S. Bureau of Census, *U. S. Census of Business—1948, The Grocery Trade* (Washington: Govt. Print. Off., 1952), pp. 102-109 (Trade Series, Bull. No. 3-1), *idem.*, *U. S. Census of Business: 1954; Retail Trade—Summary Statistics* (Washington: Govt. Print. Off., 1957), Vol. 1, p. 4-2, 1958: *U. S.*, *idem.*, *U. S. Census of Business: 1958; Retail Trade, Single Units and Multiunits* (Washington: Govt. Print. Off., 1960), pp. 4-36.

stores had sales in 1958 averaging in excess of one million dollars per store. However, the large number of small single-unit firms brought the average of all grocery stores down to only \$168,000.

Between 1948 and 1958 the average sales of grocery stores more than

doubled. This growth occurred in all sizes of firm groups, but the stores in the 11-and-over size chains increased sales at a faster rate than did the other size groups; the single-unit stores increased sales at the slowest rate (table 7).

RESOURCES USED IN THE RETAIL GROCERY BUSINESS

Grocery Firms and Stores

Number of stores. An estimated 251,664 retail grocery stores handled the \$43.2 billion sales volume for the United States in 1958. In California, 13,374 stores accounted for \$4.4 billion sales during 1958 (table 5, Appendix). The number of grocery stores in the United States was at a high of 387,337 in 1939. In California, there were 17,140 stores in 1939. The number declined in both the United States and California during World War II, followed by a rise from the end of the War through 1948. Between 1948 and 1958, a drop of 28 per cent in the number of stores occurred in the United States and 21 per cent in

California, all of the California decline occurring in the number of single-unit store firms.

California chain store outlets increased by 26 per cent between 1948 and 1958, and the number of single-store firms declined by 26 per cent. The greatest decline was in firms with no paid employees, which showed a decrease of 36 per cent compared with 18 per cent for single-unit store firms with payrolls. The decline in the number of stores without payrolls averaged 310 stores per year between 1949 and 1958 (table 8).

A continuation of this trend for another 15 years would mean a virtual elimination of all California grocery stores operated with family labor. Ap-

Table 8. Grocery Stores and Firms in California, 1929-1959

Year	Reporting units*	Firms with payroll			Grocery store establishments†		Chain store outlets		Single outlet firms		Total number of firms	Civilian population per store
		Total number	Chain store	Single outlet	Census	Adjusted permits	Total number	Per firm	Total	Without payroll		
1929.....	1	2	3	4	5	6	7	8	9	10	11	12
1939.....	†	.....	...	.....	14,404	.....	.....	...	.....	.....	.....	13
1948†.....	8,263	8,047	202	7,842	17,140	.....	.....	.....	.....	.....	.....	384
1949.....	7,985	7,769	210	7,556	18,997	16,824	16,824	1,813	9.0	15,011	7,169	588
1954.....	7,562	7,346	311	7,035	18,929	.....	16,739	1,776	8.5	14,963	7,407	607
1958.....	7,041§	6,825	356	6,469	16,758	14,481	14,481	1,982	6.4	12,499	5,464	846
1959.....	7,009§	6,793	15,312	13,374	13,374	2,291	6.4	11,083	4,614	1,079
				

PER CENT CHANGE, 1948-1958

	-15	-15	76	-18	-19	-21	-21	26	-29	-26	-36	-25	84
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* A reporting unit is a firm on a county basis. Firms operating in more than one county are counted as one reporting unit in each county in which they own establishments, regardless of the number of establishments owned in each county. Firms and reporting units are synonymous if ownership is restricted to one county. State reporting units are aggregates of county reporting units; thus, the number of reporting units is equal to or greater than the number of firms. In 1959 the number of reporting units in California exceeded the number of firms by 216.

† Blanks indicate no data available.

‡ Conforms to the 1954 United States Census of Business definition of establishment.

§ First quarter only.

SOURCES:

Column 1: Compiled from California State Department of Employment, *California Employment and Payrolls* (Sacramento: State Print. Off., annual, 1938-1951, and quarterly, 1952-1958), (Report No. 127). The 1959 data are unpublished, from the California State Department of Employment. Coded adjustments have been made

due to changes in classification, January 1957, and January 1958.

Column 2: Coded from column 1 by an adjustment factor (-216) obtained from unpublished data received from the California State Department of Employment.

Columns 3 and 8: Appendix, table 6.

Column 4: Column 2 minus column 3.

Column 5: Compiled from California State Board of Equalization, *Trade Outlets and Variable Retail Sales in California* (Sacramento: State Print. Off., quarterly, 1946-1959).

Column 6: Appendix, table 5.

Column 7: Column 5 adjusted by column 6.

Column 9: Column 8 divided by column 2.

Column 10: Column 7 minus column 8.

Column 11: Column 10 minus column 4.

Column 12: Column 2 plus column 11.

Column 13: Civilian population (Appendix, table 1), divided by column 7.

parently, large volume retail stores can operate with a much lower unit cost for their services, thereby making it difficult if not impossible for family-type stores to compete, even though the latter customarily allow themselves a very low labor wage.

A percentage distribution of all chain grocery stores shows that ownership concentration decreased in California during the past decade (table 9).

The proportion of stores owned by firms with fewer than 26 stores each rose, while the proportion owned by firms with 26 or more stores decreased. In 1957, California had a significantly larger share of its chain grocery stores owned by small-sized chains than did the nation as a whole. California also had more than 50 per cent more stores, proportionately, in the category of 10-25 stores than did the United States.

The average grocery store in California served about 50 per cent more people in 1958 than the average for the United States (table 10).

The average size of all grocery stores in California doubled during the decade, since, wherever possible, firms replaced one or more small stores with one large store.

Number of retail firms. The number of single-unit firms decreased about one-third in both California and United States between 1948 and 1958 (table 11).

In contrast, there was a 76 per cent increase in the number of chain store firms in California, predominantly in the chains of 2-3 stores. Proportionate gains in the number of medium- and large-regional chains in California were also substantial. The only group to increase in the United States was the chains of 2-3 stores, but their numbers rose sufficiently to increase the total number of chain firms by 33 per cent during the ten-year period.

Chains accounted for only 1.7 per cent of the total number of grocery firms in

Table 9. Distribution of Chain Grocery Stores by Size of Chain, California and the United States, 1948 and 1957

Number of stores per firm	California		United States	
	1948	1957	1948	1957
	<i>per cent of total</i>			
2-9.....	35	41	22	30
10-25.....	10	13	*	8
26 and over.....	55	46	*	62

* Data not available.

SOURCES: Compiled from Appendix, tables 6 and 7.

the United States in 1958, compared with 98.3 per cent for the single-unit firms. In contrast, it has been shown that the average sales volume of these single-unit firms is quite small, the total sales of the group probably amounting to not more than 20 to 25 per cent of all sales. With such a small part of the total sales volume arising in 98.3 per cent of the retail grocery firms, it is to be expected that the unit cost of supplying merchandise to the large number of small independent stores would be substantially higher than for stores and firms with larger sales volumes. To lower their unit merchandise procurement costs, owners of small retail firms often enter into arrangements with wholesaler-sponsored retail buying groups or retailer-owned buying associations for joint purchasing of merchandise, advertising, and management services.

Number of stores per firm. The average number of stores per chain decreased 29 per cent in California and 34 per cent in the United States from 1948 through 1958. The number of stores per chain in California declined from an average of 9 stores in 1948 to 6.4 stores by 1958. During this period, the number of chains rose from 202 to 356 and the number of chain store outlets rose from 1,813 to 2,291 (tables 8 and 11).

**Table 10. Civilian Population per Grocery Stores in the
United States and California, 1948 and 1958**

Year	Population per all grocery stores		Population per chain stores*	
	California	United States	California	United States
1948.....	588	414	5,458	4,819
1958.....	1,194	713	6,308	6,260
PER CENT INCREASE, 1948-1958				
	103	72	16	30

* Civilian population divided by numbers of chain stores with no allowance for independent stores.

SOURCES: Compiled from table 8 and Appendix, table 1.

Grocery Store Employment

Labor costs. W. B. England reported that over a four-year period, 1955-1958, somewhat over one-half of the expenses of the 27 identical chains used in his study was for payroll (table 12).

Consequently, changing uses of labor and labor costs have influenced the growth and changing character of the food retailing business. As the price of labor has risen in the national labor market due to a relative labor shortage, this industry, like all others, has tried to offset it by increasing the output of labor per hour, by reorganizing resources, and by substituting capital for labor whenever costs could be lowered by such a substitution. Consequently, labor costs per unit of output have not

increased as rapidly as has the price per unit of labor, as already shown in this report.

In addition to the impact of labor costs upon food marketing margins and buying and selling prices, rising wages have done much to alter specific procurement practices (U. S. Department of Agriculture, 1958). For example, because of the time saved in negotiating purchasing transactions and the availability of uniformly graded products offered by a number of wholesalers, store managers prefer to telephone orders and specify the grade or quality of product desired and to check the prices of competing wholesalers.

Employment data can be used to analyze some aspects of efficiency, for example, such measures as sales per em-

**Table 11. Grocery Store Firms, by Size of Firm in California
and the United States, 1948 and 1958**

Number of stores per firm	California			United States		
	1948	1958	Per cent change	1948	1958	Per cent change
	number of firms			number of firms		
Total.....	15,216	10,158	— 33	322,856	216,856	— 33
1.....	15,011	9,802	— 35	320,629	213,194	— 34
2-3.....	113	255	126	1,412	2,381	69
4-9.....	67	68	1	601	542	— 10
10-25.....	12	19	58	279	248	— 11
26-99.....	8	12	50			
100 and over.....	2	2	0			

SOURCES: Compiled from table 8 and Appendix, tables 6 and 7.

**Table 12. Labor Costs as a Proportion of Total Expenses,
27 Identical Grocery Chains**

Expense	1955	1956	1957	1958	Per cent increase, 1955-1958
	per cent of sales				
Total expenses.....	16.88	17.89	18.62	18.78	11
Payroll*.....	9.81	9.89	10.01	10.07	3
PAYROLL AS PER CENT OF TOTAL EXPENSES					
	58	55	54	54	..

* Including supplementary benefits.

SOURCE: England, W. B., *Operating Results of Food Chains in 1958* (Boston: Harvard Business School, 1959), p. 2. (Bureau of Business Research Bull. No. 156).

ployee, sales per man-hour, and grocery store employees per capita. Such data show the gains in total output per unit of a single input but they are of limited usefulness because other inputs are not necessarily held constant. If constant dollars are used, sales data indicate the physical changes in output that are due to the substitution of capital for labor and to the specialization of labor.

Number of employees and size of payroll. The number of employees hired per store, per firm, and by the entire industry indicates the growth of the industry and gives some evidence for studies of the effect of size increases on unit costs. Employment data for firms and industries are particularly useful as partial measures of concentration of business over a period of time because they are not affected by inflation and valuation problems. A discussion of some of the changes in employment and their relation to other changes in the grocery business follows.

The total number of employees hired by grocery stores in California more than tripled between 1929 and 1958, and there was a 55 per cent increase between 1948 and 1958 (table 13). The number of active proprietors of unincorporated businesses declined by 21 per cent between 1948 and 1958 (table 14). The number of workers, excluding corporate management, increased 35 per cent.

An increase of 28 per cent in sales per worker occurred in spite of a decrease in the number of hours worked per employee (table 14). Various industry and government studies associate these increases with specialization of workers as stores and firms have increased in size, with self-service meat departments, and with a greater use of laborsaving equipment and methods, such as a faster checkout system, and more efficient inventory control and in-store handling of merchandise.

There was a decline of 21 per cent in the total number of grocery stores and a decrease of 15 per cent in the number of firms with payrolls in California from 1948 to 1958 (table 8). There was also a rapid growth in the number of employees hired per store and per firm (table 15).

These increases were often necessary complements to the increases that occurred in the sales size of stores and the number of stores per firm. Between 1948 and 1958, when the civilian population of California increased by 46 per cent (table 1, Appendix), the ratio of employees per thousand population increased by only 8 per cent, and the worker-population ratio declined by 8 per cent (tables 13 and 14).

The payroll of grocery store employees increased by 147 per cent between 1948 and 1958 (table 13). De-

Table 13. Grocery Store Employees and Payroll in California, 1929-1959

Year	Number of employees			Payroll			Deflated payroll	
	Total	Per firm with payroll	Per thousand population	Total	Deflated by U. S. Retail Food Price Index*	Deflated by U. S. Consumer Price Index†	Per employee	Per consumer
	1	2	3	4	5	6	8	9
	number	number	number		thousand dollars		dollars	
1929.....	25,488	...	4.6	31,527	48,059	43,011	1,886	8.69
1939.....	32,885	...	4.8	42,463	90,155	71,487	2,742	13.29
1944.....	13,929	...	5.4	85,190	126,395	113,285	2,877	15.64
1948.....	52,801	6.6	5.3	159,842	153,547	155,488	2,908	15.52
1954.....	68,533	9.3	5.6	273,173	242,605	237,956	3,540	19.80
1958.....	81,884	12.0	5.7	395,085	328,416	319,907	4,011	22.76
1959.....	84,944	12.5	5.7	.....	.....	.....	.....	.....
PER CENT INCREASE, 1948-1958								
	55	82	8	147	114	106	38	47

* United States Retail Food Price Index (1947-1949 = 100), (Appendix, table 2).
† United States Consumer Price Index (1947-1949 = 100), (Appendix, table 2).
SOURCES:
Columns 1 and 4: 1929 and 1939: Adjusted from U. S. Bureau of the Census, *U. S. Census of Business*; see table 7, source of column 1. The census data for 1929-1939 are adjusted on the basis of a comparison with the census of 1948 and 1954 data from the California State Department of Employment. 1944-1959: Compiled from California State Department of Employment, *California Employment and Payroll* (Sacramento: State Print. Off., annual, 1938-1951, and quarterly, 1952-1958), (Report No. 127), Column 2; Compiled from column 1 and table 8.
Column 3: Compiled from column 1 and Appendix, table 1.
Column 7: Compiled from column 4 and table 3.
Column 8: Column 4 divided by column 1.
Column 9: Column 4 divided by civilian population (Appendix, table 1).

flation of these wages changes the increase to 114 per cent.⁸ Deflated wages per employee increased by only 38 per cent. When the total deflated payroll is divided by the total civilian population of the state, the increase in cost of grocery store labor per consumer is 47 per cent. If it is assumed that the proprietors of unincorporated grocery stores received the same wage as all grocery store employees, then the total cost of

grocery store workers per consumer increased by only 25 per cent in deflated dollars.

Total payroll as a per cent of total sales in California increased in the last ten years from 7.2 per cent to 8.9 per cent, after reaching a low of 6.8 per cent in 1950 and 1951, and a high of 9.4 per cent in 1956. Again this rise was tempered by allowing for salaries of unincorporated proprietors, but the cost of

Table 14. Total Number of Workers and Sales per Worker in Grocery Stores in California Census Years, 1929-1958

Year	Number of employees	Active proprietors of unincorporated business	Total number of workers*	Deflated grocery store sales per worker†
	<i>number</i>			<i>thousand dollars</i>
1929.....	25,488	14,085	39,573	26.2
1939.....	32,885	14,085	46,970	37.2
1948.....	52,801	19,043	71,844	40.5
1954.....	68,533	16,674	85,207	42.7
1958.....	81,884	15,023	96,907	45.0
PER CENT CHANGE, 1948-1958				
	55	-21	35	11

* The number of employees plus the number of active proprietors of unincorporated businesses.

† Deflated by U. S. Retail Food Price Index (1947-1949 = 100).

SOURCES: Tables 3 and 13 and Appendix, table 5.

Table 15. Employees and Workers per Grocery Store, California and the United States, 1948 and 1958

Year	California			United States	
	Employees per		Total workers* per store	Employees per store	Total workers* per store
	Store	Firm with payroll			
	average number				
	1948.....	3.1	6.6	4.2	1.8	2.8
1958.....	6.1	12.0	7.2	3.8	4.9
PER CENT INCREASE					
	97	82	71	111	.75

* Includes owners.

SOURCES: Compiled from tables 8, 14, and Appendix, table 5.

⁸ Deflated by the United States Retail Food Price Index; deflation by the United States Consumer Price Index results in an increase of 106 per cent during this period (table 13).

all grocery workers increased from 9.8 to 10.6 per cent of sales, a rise of 0.8 per cent in the last ten years.

Labor costs per capita and payroll as a per cent of sales indicate that the cost of labor per unit of output in food retailing increased during the ten-year period, in spite of the increase in sales per worker. This finding was substantiated by the United States Department of Agriculture, which estimated a 67 per cent increase in labor costs per unit of output in the entire process of marketing farm food products between 1948 and 1958. However, the increase in unit cost of labor may have been partially caused by additional labor services per unit of output.

Employees per reporting unit. The employment data from United States Department of Commerce's *County Business Patterns* for 1946, 1947, 1948, 1951, 1953, and 1956 give the number of reporting units stratified into employee size classes.⁹ These data are useful in describing the growth rates of different sizes of firms, in showing the firm sizes with lower unit operating costs, and in measuring the concentration of ownership of firms.

In California, the number of reporting units each having between 100 and 499 employees increased more rapidly than did any other employee-size stratification between 1948 and 1956 (table 16).

Since 1951 the 100-499 employee stratification has consisted of two classes. Between 1951 and 1956, the 100-249 employee class increased only 7 per cent, whereas the 250-499 class increased in number by 175 per cent. This latter class grew more in five years than any other size class in eight years. The 20-49 and 50-99 employee classes also increased

substantially. There was a decrease in the number of reporting units having 3 employees or less. In contrast, the United States exhibited a closer approximation to a statistical "normal" curve in the increase in numbers of grocery reporting units, by employee-size classes (table 16). However, this curve also was skewed to the right. The modal point on this curve was the 50-99 employee-size class.

The California data for 1959 showed a continuation of the time trends already noted, with one exception. The largest increase since 1956 was in the 500-and-over size class rather than in the 250-499 class. In fact, the latter class decreased by one reporting unit while the former gained six, for an increase of 43 per cent in three years. The 20-49 class gained 20 per cent, so a bimodal pattern emerged; however, the 50-99 and 100-249 classes, respectively, increased by 12 and 14 per cent.

The bimodal industry growth pattern for California was consistent with the data presented on the increase in number of stores per firm. From 1948 to 1958, the number of firms in the chain store group of 2-3 stores increased by 126 per cent, compared with the 136 per cent increase in number of reporting units having 20-49 employees. These stratifications were comparable because it was estimated that, on the average, there were 8 employees per grocery store in this size of chain in California in 1954.¹⁰

The chains of 26-99 stores also showed rapid growth in the last ten years by increasing their total number of stores by 109 per cent. The average size of these chains was 32 stores each in 1948 and 42 stores each in 1958. These stores employed an average of 17 employees in 1954. Thus, they accounted for the large increase in the 250-499 employ-

⁹ This report is supplemented by unpublished 1959 data from the California State Department of Employment.

¹⁰ This estimate was based on the total payroll and number of establishments by size of chain. It assumes that the average wage paid to all grocery store employees in California was also paid to those employed by this size of chain.

Table 16. Reporting Units Stratified by Size of Firm, California and the United States, 1947-1959

Year	Employees per firm									
	Total	0-3	4-7	8-19	20-49	50-99	100-249	250-499	500 and over	
	Number of reporting units									
California										
1947.....	6,446	4,489	1,270	478	118	47	33*		11	
1948.....	7,085	5,116	1,218	520	143	45	32		11	
1951.....	7,221	5,215	1,196	522	153	61		8	11	
1953.....	7,008	4,852	1,247	572	194	72		16	12	
1956.....	6,901	4,533	1,235	664	284	90		22	14	
1959.....	7,009	4,357	2,106		342	96		21	20	
Per cent change										
1948-1956†.....	-3	-11	1	28	99	100		153	27	
1948-1959.....	-1	-15		21	139	113		175	82	
United States										
Number of reporting units										
1947.....	115,922	83,430	23,469	6,507	1,583	427	357		149	
1948.....	121,993	89,657	22,933	6,680	1,766	429	374		154	
1951.....	130,036	93,441	23,755	8,245	2,864	887		199	120	
1953.....	126,057	88,760	23,983	8,193	3,316	971		156	162	
1956.....	121,988	86,079	20,298	9,603	3,802	1,218		208	180	
Per cent change										
1948-1956.....	100	-4	-11	44	115	184		120	17	

California

1947	100.0	69.7	19.7	7.4	1.8	.7	.5	.2
1948	100.0	72.2	17.2	7.3	2.0	.6	.5	.2
1951	100.0	72.2	16.6	7.2	2.1	.8	.1	.2
1953	100.0	69.2	17.8	8.2	2.8	1.0	.6	.2
1956	100.0	65.7	17.9	9.6	4.1	1.3	.8	.2
1959	100.0	62.1	30.0		4.9	1.4	1.0	.3

Per cent change

1948-1956	0	-9	4	32	105	117	120	0
1948-1959	0	-14	22		145	133	160	50

Per cent of total firms

United States

1947	100.0	72.0	20.2	5.6	1.4	.4	.3	.1
1948	100.0	73.5	18.8	5.5	1.4	.4	.3	.1
1951	100.0	71.8	18.3	6.3	2.2	.7	.4	.1
1953	100.0	70.4	19.0	6.5	2.7	.8	.4	.1
1956	100.0	70.6	16.6	7.9	3.1	1.0	.5	.1

Per cent change

1948-1956	0	-4	-12	44	122	150	133	0
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* A number set between two columns pertains to those two columns as a group.

† A comparison is not made with 1947 because the number reported for that year is suspect when compared with data from the California State Department of Employment. Sources: 1947-1956: Compiled from U. S. Bureau of the Census and U. S. Bureau of Old-Age and Survivors' Insurance, cooperative report, *County Business Patterns* (Washington: Govt. Print. Off., First Quarters, 1947, 1948, 1951, 1953, and 1956); 1959: Unpublished data from California State Department of Employment.

ment-size class between 1948 and 1956 and in the 500-and-over size class since 1956. Between 1956 and 1958, the chains of 51-99 stores increased in number from 1 to 3, and in stores from 98 to 212.

In each of the cumulative size classifications, California had the highest proportion of large-size reporting units (table 17).

The lead appeared comparatively the stronger in the 100-and-over employee-size group, but it was substantial in all classes. This measure of size of firm also shows that the retail grocery business was more concentrated in California than in the total United States, even though ownership concentration in the state declined from 1948 through 1958.

Capital Requirements of Retail Grocery Firms

Service-type businesses, such as retail grocery stores and commercial banks, generally operate with a much lower sales-asset ratio than firms merchandising dry goods and hardware, manufacturing firms, and petroleum and mining firms (The Fortune Directory, 1959). For example, the sales of the Great Atlantic & Pacific Tea Company were \$5.1 billion in 1958 and total assets (owners and creditors) were \$647 million. In contrast, General Motors had sales of \$9.5 billion and assets of \$7.3 billion. Safeway Stores, Incorporated, had sales of \$2.2 billion and assets of \$408 million, compared with the Texas Company (oil) sales of \$2.3 billion and assets of \$3.1 billion. Sears, Roebuck and Company had sales of \$3.7 billion and assets of \$2.0 billion. An examination of the financial data of a number of firms reported in Dun and Bradstreet tends to confirm the foregoing generalization regarding sales-asset ratios. Likewise a study of such records shows a lower investment by grocery chains in physical facilities and equipment, which apparently arises from differences in the

Table 17. Cumulative Distribution of Reporting Units of Grocery Firms with Payrolls, California and the United States, 1956

Employee size class	California	United States
	per cent of total firms	
500 and over.....	.2	.1
250 and over.....	.5	.3
100 and over.....	1.4	.8
50 and over.....	2.7	1.8
20 and over.....	6.8	4.9
8 and over.....	16.4	12.8
4 and over.....	34.3	29.4

SOURCE: Compiled from table 16.

kinds and amount of such facilities and more rentals by grocery firms.

The average investment in buildings and equipment for new supermarkets (exclusive of parking lots and merchandise inventory) was estimated at \$431,000 in 1958. This was an increase of 29 per cent over 1955 (table 9, Appendix). While an investment of \$500,000 does not represent "big business" in the usual sense of the term, a supermarket is a sizable commercial venture compared with past standards for the retail grocery business.

A further concentration of sales in the supermarket-type retail outlet suggests that the capital required for opening such stores and supermarket chains will ordinarily be obtained from the public sale of corporate securities or from undistributed earnings supplemented by leasing arrangements. Such an arrangement spreads any risks among a large number of investors and also gives small investors an opportunity to provide capital for a grocery business. In recent years there is no evidence of any shortage of capital for investment in well-organized chains and supermarkets, a condition that is related to an average net return on net worth in excess of 12 per cent per year after taxes (Fairchild Publishing Company, 1957 and 1959).

Relation of Size to Unit Cost

Seeking optimum size. Management is continually seeking the combination of production factors and/or size of store or firm that will minimize unit cost of the product under specific conditions. According to Bowering, Southworth, and Waugh (1960), "the combination will change as the prices of the productive factors change. For example, an increase in wages may be sufficient to justify the purchase of an additional piece of equipment. . . . Similarly, the prices of raw materials used in production may change, and one material can be substituted for another." Or, the size of the firm's operation may be increased, the justification in each case arising when it may be possible to obtain constant or proportionately greater increases in output (total revenue) than the constant or proportionate changes in inputs (costs). This latter set of conditions would lower the unit cost of products and improve the profit position of the firm.

The growth in the average size of grocery stores and firms which is disclosed by the foregoing analysis of sales, employment, number of stores per firm, size of stores, and financial requirements is one manifestation of management's belief that the most effective way to keep down or lower unit costs is to increase sales volume. This belief is perfectly tenable since most grocery stores and firms have been found to have labor and/or facilities that are not fully employed. Undoubtedly, an absolute increase in sales volume would lower unit buying and selling costs by spreading operating costs over a larger volume of products.

Since each firm is seeking to move into a more favorable economic position as rapidly as possible, it appears that there would be a gradual attrition of the least efficient firms by (1) closure, (2) merger with other firms to achieve some

of the advantages of size, (3) adjustments in operating methods to bring costs and revenues into balance, or (4) an increase in sales which would better utilize the capacities of the least efficient firms. In any event, the management of retail grocery firms recognizes the necessity of achieving greater operating efficiency in order to survive.

The survival technique. Stigler has developed a very useful procedure for determining the optimum-sized plant or firm, particularly when the data for more accurate analyses are not available or are impossible to obtain because of the time or the costs involved (Stigler, 1958). He reasoned that the optimum size is the one that has best stood the test of time and competition. The concept, based on Darwin's principle of the survival of the fittest, is called the survival technique. The technique involves classifying plants or firms in an industry by size, and calculating the share of business of each size group over time. If the share of business in a given size group falls, that group is considered relatively inefficient; if its share of business is maintained or increased, that size group is relatively efficient. Efficiency in this sense is defined from the standpoint of the owner of a firm and not necessarily from the standpoint of society. Thus, the efficiency of survivors may be due to monopoly power, as well as technological efficiency.¹¹ However, social efficiency involves moral judgments which Stigler considers outside the realm of economics. A difficulty with the survival technique, particularly when applied to a growing industry, is that an optimum size may change over time. Time periods, therefore, should be kept relatively short and optimum size should be stated as a range rather than a point.

Application of survival technique. Many of the data already presented can be used to determine the optimum size of grocery store and firm by the survival

¹¹ A relative increase in output is associated with improved work methods and/or equipment.

technique. Table 5 shows that between 1948 and 1958 grocery stores selling one million dollars or more annually had about a sixfold increase in dollar sales, that is, a rise from 11.9 to 45.4 per cent of total grocery store sales. The \$300,000 to one million dollars group declined from 26.2 to 23.4 per cent, and the less-than-\$50,000 to \$300,000 sales group dropped from 61.9 to 31.2 per cent of total grocery store sales. During the same period the U. S. Retail Food Price Index advanced 20.3 per cent.

Between 1954 and 1958 the grocery stores selling in excess of one million dollars annually increased their share of total sales from 32.5 to 45.4 per cent. These data and those for 1948-1958 seem to indicate that the optimum-sized store had an annual volume of more than \$300,000 and possibly more than one million dollars in 1958. This rough estimate received further verification from industry economists at a seminar concerning the "Growth and Development of Food Retailing" sponsored by the Western Regional Marketing Technical Committee of the eleven Western Agricultural Experiment Stations and held at the University of California, Los Angeles, in January 1960 (DeLoach, 1960).

Table 7 sheds some light on the optimum grocery-firm size. Single-store firms lost an estimated 21 percentage points of their share of all grocery sales in California, against 12 points in the United States, between 1948 and 1958.

Meanwhile, all of the chains gained in their share of sales, with the 2-3 and 4-10 store chains in California gaining most. All sizes of chains in the United States showed about proportionate gains.

While the share of sales and the number of stores per firm of the single-store firms declined between 1948 and 1958 (table 8), California stores with no payroll declined in number by 36 per cent, while those with payrolls declined only 18 per cent. The 2-3 store chains increased most rapidly in number and the number of the largest chains (400 and more) declined. The optimum-sized grocery firms in California operated between 2 and 99 stores each, with a suggestion that the 26-99 store range was gaining favor. Apparently the very-large-sized chains and the single-unit firms were proving less economical than the 2-99 store class.

The reporting units in the size classes hiring between 8 and 499 employees increased as a proportion of the total grocery stores in the state (table 16), while the 1-3 class decreased and the 4-7 and 500-and-more store classes remained about the same. The optimum-sized firm apparently hired between 8 and 499 employees per county between 1948 and 1959, with the upper half of this range the most likely to contain the optimum-sized firms.

Data are not available for comparing the net profits of firms in the various size classes. Such a comparison would be quite meaningful, if it were possible.

THE PRECEDING DISCUSSION of grocery store sales, employment, store and firm sizes, and capital requirements focuses attention on the demands for products and services in stores in different size and ownership classifications. The ensuing analysis deals with firms as productive units and with changes in their organization and structure. The objective is to describe and analyze the organizational forms and other managerial processes that are used to facilitate the mass buying and selling of groceries.

Legal Form

Aid in obtaining capital and management. The form of business organization chosen by management or owners is ordinarily determined by the amount of capital required for the business venture, the sources from which capital is to be obtained, and the desire to limit the risk assumed by the investors. An assurance of continuity of the business firm is also needed to obtain

capital and the type of personnel required for its operation. With the growth in size of retail grocery firms, the amount of capital and the number of qualified employees needed to finance and operate such firms increases, though not always in proportion to the growth in size. It would appear, therefore, that there is a correlation between the size of the firm and the type of business organization (table 18).

As might be expected, the number of single proprietorships far outnumbers partnerships and corporations. Even though more than three-fourths of all grocery stores in the United States were single proprietorships, they accounted for less than one-third of the 1958 sales. In contrast, about two-thirds of the stores in California were single proprietorships and they accounted for slightly more than one-fifth of the 1958 sales. The proportion of total sales by partnerships and corporations was high in relation to the number of firms in

Table 18. Grocery Store Establishments and Sales by Legal Form of Organization, California, 1958, and the United States, 1948 and 1958

Form of organization	United States				California	
	1948		1958		1958	
	Establishments*	Sales	Establishments*	Sales	Establishments*	Sales
	per cent of total					
Individual proprietorships.....	77.9	42.2	77.3	29.5	64.8	21.4
Partnerships.....	14.4	17.2	12.0	12.5	20.5	17.8
Corporations.....	{	{	10.5	57.7	14.6	60.5
Other.....			0.2	0.3	0.1	0.3

* In 1948 an organization needed only \$500 in gross sales to qualify. Since 1954 this was raised to \$2,500 in the case of no paid employment.

SOURCE: Compiled from U. S. Bureau of the Census, *U. S. Census of Business—1948; The Grocery Trade* (Trade Series, Bull. No. 3-1), and *U. S. Census of Business: 1958; Retail Trade—Legal Form of Organization*.

¹² According to Duddy and Revzan (1953), "the term 'structure' connotes something that has organization and dimension—shape, size, complexity—a design that is evolved *for the purpose of performing a function*. The function or functions it performs help in turn to influence its design. *Function modifies structure*."

those categories in both California and the United States. Between 1948 and 1954 the sales of both partnerships and corporations, as a proportion of total sales, increased at the expense of single proprietorships. In California, where a higher proportion of retail grocery stores were in the supermarket class and a part of chains, the proportion of partnerships and corporations was higher than for the United States as a whole (table 18). As is shown elsewhere in this analysis, the recent rate of attrition of unaffiliated single-store firms, if continued, will virtually eliminate all such firms in California in the next fifteen years.

Growth Pattern of Retail Firms

Size of stores. In addition to sales volume which has already been mentioned, floor area and the number of different items handled by each outlet are useful physical measurements of size and partial indicators of investment and personnel requirements. Table 19 shows that the average selling area of new supermarkets built in 1953-59 increased, while the over-all area of the stores reached a peak in 1957 and declined in 1958 and 1959. This decline in over-all store space appears to be related to changes in the inventory policies of retail firms which have been shifting more of the warehousing function back to their central warehouses or to their wholesale suppliers.

The flood of new products offered to retailers by suppliers in recent years and the receptiveness of consumers to new products have encouraged retailers gradually to increase the number of items they carry (table 20) as one competitive weapon in the struggle for customers. Furthermore, the increase in the number of items handled provides a broader merchandise base for a store's operations, assuming the margins and volumes of new products yield additional net revenue that justifies the cost of providing the shelf space allocated to them.

Table 19. New Supermarkets Opened Each Year, 1953-1959*

Year opened	Total store area	Selling area only	
	square feet	square feet	per cent of total store area
1953.....	13,600	9,400	69
1954.....	15,000	10,200	68
1955.....	18,000	†	†
1956.....	21,200	11,700	54
1957.....	22,000	12,400	56
1958.....	20,500	13,100	64
1959.....	20,000	13,300	66

* Since 1955 a supermarket has been defined as having sales of \$20,000 or more per week, completely departmentalized store and at least the grocery department fully self-service. In 1953 and 1954, the definition included all stores with annual sales of at least \$500,000.

† Data not available.

SOURCE: Super Market Institute, *Facts About New Super Markets* (Chicago: 500 N. Dearborn, annual 1953-1959).

Table 20. Items Carried by Grocery Supermarkets

Year	Average number of items
1928.....	867
1946.....	3,000
1950.....	3,750
1955.....	4,723
1957.....	5,144
1958.....	5,600

SOURCE: Mueller, R. W., "1958 Food Store Sales Up 4.9 per cent—Reach \$48.275 Billion," *Progressive Grocer*, Vol. 38, No. 4 (New York: 161 Sixth Avenue, April 1959), p. F-3.

In other words, the increase in average store size is associated with the efforts of operators to obtain cost economies from large volume operations. At least, the growth in the number of large stores at a time when the number of small stores is declining tends to support the premise that high volume sales per firm and store gives the operators an opportunity to spread their fixed costs over a larger number of items sold, thereby reducing unit costs of selling. It appears that the retailers' bargaining position with their suppliers would be improved and that there would be more opportunities for in-store mechanization and specialization of labor as stores expanded.

**Table 21. Distribution of Size of Supermarkets, United States,
by Size of Firm Classes, 1957**

Number of stores per firm	Square feet				
	Under 5,000	5,000- 10,000	10,000- 15,000	15,000- 20,000	Over 20,000
	<i>per cent of total stores in size group</i>				
1.....	15.2	53.3	20.1	6.8	4.6
2-3.....	6.3	40.0	23.1	12.7	17.9
4-10.....	.8	16.4	21.3	25.4	36.1
11-25.....	1.5	6.0	31.8	28.8	31.9
26-100.....	.0	2.7	20.2	30.5	46.6
101 and over.....	.2	10.8	35.2	36.5	17.3

SOURCE: *Super Market Merchandising* (New York: Super Market Pub. Co., 67 West 44th St., April 1957), Vol. 22, No. 4, p. 124.

Food industry economists who participated in the seminar at the University of California, Los Angeles, in January 1960, claimed that a single-store firm with annual sales of around one million dollars is probably large enough to obtain a substantial share of the potential economies of large quantity orders (price discounts, and lower handling and receiving costs), particularly if it purchases through a cooperative or voluntary type buying group. It was their belief that quantity discounts and any lower per unit costs of handling merchandise are available to firms that can take a rolling unit (truckload, carload, or lesser-sized rolling unit) in one order. For most merchandise requirements, this size order was considered to be within reach of a store with a one million dollar volume. The industry economists also claimed that any cost reductions possible from direct buying, specification buying, and to some extent, vertical integration back to the process-

ing level are within the reach of most single-unit firms buying through affiliated groups. It was recognized, however, that procurement cost reductions that can be obtained from volume buying by affiliated groups can be lost through uneconomical distribution from central warehouses to small stores affiliated with the buying group.¹³ The economists expressed a belief that a substantial part of the single-unit firms operating in 1958 did not have a sufficient sales volume to achieve the low-unit operating cost now required in the retail grocery business. There is also some indication that the actual physical limitation of store space might contribute to the inability to increase the number and kinds of items handled, thereby holding down sales (table 21).

New stores. In addition to the different possibilities for growth of the size of stores, a firm can achieve horizontal growth by building new stores, or by the acquisition of stores from other firms

¹³ Affiliated stores are divided into two groups. (1) *Retailer-owned cooperatives* which are owned and operated by a group of member retail grocery firms. The central warehousing organization performs the major wholesaling function of buying for and distributing to retail members the quantity and kinds of merchandise desired by the members. Most cooperatives limit their buying to staple groceries. Some of the larger organizations offer other services to their members such as credit, joint advertising, and special management services. These are nonprofit-type associations. (2) *Voluntary wholesaler-sponsored buying groups* which are organized by grocery wholesalers. The wholesale firm contracts with individual retail firms to supply all or part of the retail firms' merchandise requirements and specified managerial services. These are profit-type firms.

either by purchase or merger (horizontal integration). Between 1953 and 1958, 154 food chains reported to the Federal Trade Commission that 71 per cent of their 1958 sales originated by stores owned and operated by them in 1953, 22 per cent by stores opened since 1953, and 7 per cent by stores acquired since 1953 (table 22).

Medium-sized chains were the most active in opening and acquiring new stores. The effect on total sales volume of the firms acquiring stores was noticeable. Chains of 26-50 stores obtained more than one-third of their 1958 sales from new stores opened since 1953. Chains of 51-100 and 101-500 stores obtained slightly less than one-third of their sales from new stores opened since 1953, but they led all groups in the proportion of 1958 sales from newly acquired stores. Chains of 101-500 stores obtained nearly one-half of their 1958 sales from stores built or acquired since 1953, whereas the sales of the large chains (more than 500 stores) came more from stores owned prior to 1953. For all chains, new or replaced stores accounted for about three-fifths of the total sales increase of 56 per cent between 1953 and 1958, the original stores accounted for one-fifth, and acquisitions, one-fifth (Federal Trade Commission, 1960). In all sizes of chains, new stores

contributed to the management goal of a larger sales volume.

These statistics take on added significance when it is realized that the 1953-1958 period was one of relatively rapid merger activity. Table 23 shows that, of all the food stores acquired by the 154 chains between 1949 and 1958, 81 per cent were acquired since 1953. Fewer than 83 of the total 154 chains reporting made acquisitions during this ten-year period.

There is some question about the proportion of all food chain acquisitions represented by those reported by the Federal Trade Commission study. The National Association of Retail Grocers (1959) reported that 2,657 stores were acquired by 160 acquisitions in the 1955 to 1958 period. This was 76 per cent more acquired stores than was reported to the Commission, resulting from 34 per cent fewer acquisitions. However, most of this difference was accounted for by 740 stores acquired by George Weston, Ltd., a Canadian concern not in the Commission study. Weston acquired a controlling interest in National Tea, which had 761 stores at the end of fiscal year 1956. National Tea in turn was reported to have acquired 178 stores, so double counting has occurred.

By means of sampling, Nelson and Paul (1959) estimated a total of 730

Table 22. Distribution of 1958 Sales of 154 Food Chains, United States, by Size of Chain

Number of stores in chain, December 31, 1958	Number of chains	Stores in operation in 1953	New stores opened since 1953	Stores acquired since 1954
		per cent of total 1958 firm sales		
Total.....	154	71.2	21.8	7.0
11-25	71	64.1	24.7	11.2
26-50	46	61.7	34.3	4.0
51-100	18	57.2	28.5	14.3
101-500	13	55.6	29.0	15.4
501 and over.....	6	81.6	14.9	3.5

SOURCE: Compiled from Federal Trade Commission, *Economic Inquiry into Food Marketing; Part I: Concentration and Integration in Retailing* (Washington: Govt. Print. Off., 1960), p. 105.

Table 23. Food Store Acquisitions by 154 Food Chains, United States, 1949-1958

Year of acquisition	Acquiring companies	Acquisi- tions	Stores acquired	Annual sales when acquired
	number			thousand dollars
1949.....	6	6	72	66,180
1950.....	5	5	5	3,889
1951.....	10	12	69	27,829
1952.....	5	10	273	70,800
1953.....	11	12	71	86,617
1954.....	17	20	70	60,580
1955.....	23	48	455	434,166
1956.....	36	70	439	397,325
1957.....	34	54	363	322,520
1958.....	38	78	421	450,003
Total.....	83*	315	2,238	1,919,909

* Column does not add since some companies made acquisitions in more than one year.
SOURCE: Federal Trade Commission, *Economic Inquiry into Food Marketing; Part I: Concentration and Integration in Retailing* (Washington: Govt. Print. Off., 1960), p. 128.

food store acquisitions from 1952 through 1958, or more than double the Federal Trade Commission count. In addition, they reported 422 disposals by food firms during this period. These acquisitions and disposals included retail outlets and processing facilities, so both horizontal and vertical expansions were included. Their sample was designed to cover the entire food retailing business, including small chains, whereas the Commission's data cover only the large chains.

Merger activity, though not the major method of growth for the food industry from 1949 through 1958, was the primary method for some firms and used only infrequently by others. The bulk of the mergers was centered in relatively few firms. Of the 2,238 stores acquired by the 154 chains between 1949 and 1958, 35 per cent was acquired by 2 chains, National Tea and Winn Dixie, and 66 per cent by 10 chains. In 1959, not a single acquisition was recorded for the same 10 large chains (Wall Street Journal, 1960). Atlantic and Pacific Tea Company did not acquire any stores by merger from 1926 through 1958, and Safeway acquired relatively few stores in recent years.

The National Association of Retail

Grocers ranked the Pacific Region second among regions in sales by acquired stores, with only 20 per cent of the total national acquisitions. However, the Pacific Region ranked fifth in number of acquired stores, with 15 per cent of the total. Los Angeles was the primary center of acquisitions in the Pacific Region. Among the 13 chains listed as leaders in annual sales of acquired stores, 3 were in the Pacific Region, an area in which the growth in size of store outlets and firms has been high.

Bases for growth of store and firm. Regardless of the method used to accomplish the growth of a store or a number of stores in a retail grocery firm, there are three main reasons for decisions to expand. These are (1) a desire to utilize more completely the labor, management, cash, credit, and/or plant facilities available to the firm; (2) a desire to spread or reduce risks; and (3) an opportunity to develop new and profitable market outlets.

The desire to utilize fully the available resources of the firm can apply to any one or all factors of production. For example, a chain with a warehouse that is not completely utilized will often attempt to obtain more retail outlets to lower the unit cost of warehousing, other things

being equal. A chain with a processing plant that is not being fully utilized might seek to increase its retail outlets by ownership or to sell at wholesale prices to other retail firms. And frequently, the opportunity for quantity discounts and lower unit receiving and handling costs that are possible through large orders may furnish an additional incentive for expansion in the number of stores.

The opportunity to spread advertising and other promotional costs over a larger volume of sales arises when one newspaper advertisement or radio program would serve a multiunit firm with no more cost than one store. The pressure on management from ambitious employees who are seeking advancement opportunities frequently encourages owners to expand their business in order to lower labor turnover. Likewise, an accumulation of cash reserves or the possibility of credit under very favorable conditions are incentives to management to find a profitable outlet for such resources. Since the experience of managers is largely in the retail food or related wholesale and processing activities, it is only natural for them to explore any possibilities in that area before investing in other business ventures.

Chains can minimize store location risks by geographic distribution of their store outlets and by locating outlets in areas with different income levels and different sources of employment for their customers. Multiunit firms can also withstand a loss of business in one or more stores without seriously affecting the over-all net income of the firm. With population shifts becoming more important, especially in communities that depend on national defense activities for employment opportunities, the in-and-out movements of retail grocery stores has been of considerable importance to such operators.

While there are location risks in population shifts and growth, there are also

opportunities. The managements of many firms contract with or employ market research analysts to appraise the sales potential for stores in specified locations. When promising sites are disclosed, chains normally have or can obtain the capital and qualified personnel to accomplish such an expansion. Frequently, the sites of interest to chains are located in new shopping centers, the owners of which usually control the number of each type of store admitted to the center. Such a "franchise" is often a highly valuable and sought after arrangement. The rapid increase of new shopping centers throughout the country has afforded chains an unusual opportunity to expand their store numbers or to relocate store outlets. This has been particularly true in California.

Limitation of store numbers. Even though there are many inducements for horizontal and vertical expansion of chains, overexpansion is possible and it has occurred. The main limitations on firm size are (1) increasing costs of communication as a firm expands, (2) increasing costs of managerial control, data reporting, and employee supervision, (3) increasing legal costs associated with various government regulatory activities, and (4) promotion expenditures that are assumed to be necessary to maintain favorable public relations. The first two are interrelated. They can often be mitigated by decentralization of decision making and improved management techniques. The third and fourth factors probably increase in some geometric proportion to the size of a firm.

Vertical growth of grocery chains. Vertical growth of grocery chains refers to the ownership or control of food processing or wholesaling activities, while horizontal growth refers to an extension of the retailing function only. The only vertical growth considered in this section is that based on control of supply sources and functions; consideration of contractual agreements is deferred.

**Table 24. Food Manufacturing Establishments Operated by
Food Chains, 1954 and 1958**

Kind of establishment	Number of chains reporting		Number of establishments	
	1954	1958	1954	1958
Meat-packing plants.....	5	5	9	9
Prepared meats.....	10	11	12	14
Poultry-dressing plants.....	3	5	3	5
Dairy products, except milk.....	19	20	33	42
Concentrated milks.....	5	5	13	13
Fluid milk and other products.....	9	12	22	27
Canning, preserving and freezing.....	6	8	16	18
Bread and related products.....	38	45	126	147
Confectionary and related products.....	6	7	7	8
Miscellaneous food preparations and kindred products.....	11	9	20	18
Coffee, roasted or concentrated.....	21	22	38	39
Total*.....	52	63	299	340

* Some firms reported the same establishment in more than one category.

SOURCE: Federal Trade Commission, *Economic Inquiry into Food Marketing; Part I: Concentration and Integration in Retailing* (Washington: Govt. Print. Off., 1960), p. 284.

Between 1954 and 1958, the Federal Trade Commission reported an increase of 17 per cent in the number of food manufacturing establishments operated by food chains (table 24).

The total value of shipments from such establishments increased by 21 per cent, compared with an increase of 19 per cent in the total sales of food during this four-year period. Apparently retailers continued to purchase about the same proportion of products from their own establishments. Mueller and Garoian (1960) reported that in 1958 all chain-manufactured products sold through chain stores accounted for only 7.6 per cent of total grocery chain store sales, compared with 11 per cent in 1930. Thus, these data show a relative decrease in vertical integration in the last three decades.

Probably the most complete tabulation available of grocery store chains owning establishments in other industries is presented in table 25.

A total of 2,077 establishments in other industries was owned by 219 grocery firms in 1954. These firms included many with establishments in more than one other industry. Counting each firm

in each industry in which it had establishments gives a total of 347; thus, there were 128 duplications of grocery firms owning establishments in more than one other industry. Only 443 of the 2,077 establishments were classified by industries.

Tables 24 and 25 are generally consistent except that table 24 excludes integration into industries other than food manufacturing. Among food manufacturing industries, the most common production activities of grocery chains were the processing of bakery products and dairy products. Chains have found conventional processing and wholesale margins particularly wide in these activities as a result of relatively high selling and delivery costs. In some states, minimum legal retail prices on fresh milk probably prompted chains to move into dairy products manufacture in order to profit from legally maintained margins. Table 25 indicates three other industries in which about as many grocery firms owned establishments: retail trades other than food, other food retailing, and food-product wholesaling.

Mueller and Garoian (1961) noted that by 1957 the 4 largest grocery chains

Table 25. Grocery Store Firms with Establishments in Other Industries, by Industries, 1954

Industries other than grocery	Number of grocery firms	Number of establishments in other industries owned by these firms
Meat packing.....	7	11
Dairy products.....	26	54
Canned and frozen food.....	9	18
Grain mill products.....	3	3
Bakery products.....	42	128
Other food products (retail).....	19	70
Beverages.....	6	*
Mining.....	1	*
Lumber and furniture.....	2	*
Pulp, paper and board.....	1	*
Printing.....	2	*
Chemicals, refining and rubber...	2	*
Public warehouses.....	1	*
Food product wholesalers.....	43	57
Wholesale trade, not food.....	24	*
Assemblers of farm products.....	1	3
Food stores except groceries.....	41	102
Eating and drinking places.....	31	57
Retail trade, not food.....	63	*
Service trade, not food.....	12	*
Other industries.....	11	*
Total enumerated.....	347†	443
Actual total.....	219	2,077

* Data not available.

† Some companies owning establishments in more than one industry were counted in each industry in which they had establishments.

SOURCE: Bright, I., *Food Marketing Companies, Diversification and Structure*, U. S. Department of Agriculture (Washington: Govt. Print. Off., 1958); pp. 6, 7, 19 and 20 (Marketing Research Report No. 291). This report is adapted from U. S. Bureau of the Census, *Company Statistics* (Washington: Govt. Print. Off., 1958) (Bull. CS-1).

had integrated on the average into 10.5 of 17 important grocery manufacturing industries; the 4 next largest chains had integrated into 4.6 of these industries; and the 12 chains next in size had integrated into only 1.9 industries. They then noted that since 1942 these latter 12 firms had vertically integrated at a relatively faster rate than had the larger firms, which was commensurate with their comparative horizontal growth rates.

Table 26 shows that 1,400 grocery stores were owned by firms classified in other industries in 1954.

Table 26. Firms in Other Industries Owning Grocery Stores, by Industries, 1954

Industries other than grocery	Number of firms	Number of grocery stores owned by these firms
Meat packing.....	2	3
Dairy products.....	4	47
Canned and frozen food.....	3	10
Grain mill products.....	1	2
Sugar.....	1	10
Other food products.....	5	59
Mining.....	*	37
Textiles.....	*	13
Lumber and furniture.....	*	3
Pulp, paper, and board.....	*	4
Printing.....	*	8
Chemicals, refining, and rubber...	*	18
Milling.....	*	2
Fabricated metal products.....	*	2
Machinery, instruments, and parts	*	13
Miscellaneous manufacturers.....	*	2
Food products wholesalers.....	12	50
Wholesale trade, not food.....	*	39
Food stores except groceries.....	11	30
Eating and drinking places.....	13	21
Retail trade, not food.....	*	288
Service trade, not food.....	*	11
Company not specified.....	*	278
Total enumerated.....	52	950
Other industries, not enumerated.		450
Actual total.....		1,400

* Data not available.

SOURCE: Bright, I., *Food Marketing Companies, Diversification and Structure*, U. S. Department of Agriculture (Washington: Govt. Print. Off., 1958), pp. 19-21 (Marketing Res. Rep. No. 291). These data are adapted from U. S. Bureau of the Census, *Company Statistics* (Washington: Govt. Print. Off., 1958) (Bull. CS-1).

These stores comprise only one-half of 1 per cent of the total number of grocery stores in the United States. Of these 1,400 stores, 950 were classified by the name of the industries of their parent firms. Retail trades other than food owned the largest number of stores, and the degree of forward vertical integration by food manufacturers and wholesalers was relatively small. Table 26 also indicates the number of other retail and nonfood firms which have entered grocery retailing.

Vertical integration of grocery chains into wholesaling and processing is often

used (1) to assure a regular supply of a given quantity and quality of products, (2) to assure an opportunity to invest profitably in certain processing industries, (3) to obtain any cost advantages arising from the elimination of wholesale selling costs of suppliers, and (4) to avoid some of the impacts of minimum legal pricing. The ability to use vertical integration to acquire control of sources and the advantages gained from such an action often depend upon the horizontal size of the retail firm.

When retailers find it necessary to resort to ownership or control of supply sources, the pricing system may be at fault or a monopolistic control may be affecting the conditions under which supplies are forthcoming. As chains have expanded horizontally and have introduced standardized merchandising and promotion practices, their supply requirements have been increasingly difficult to fill on the open market. This encouraged large retail firms to resort to purchase on contracts and to specification buying of some commodities. Some processors apparently have been reluctant to sell to chains on the basis of buyer specifications or to pack for a buyer's label. This reluctance has been based on a belief that, if they sold unbranded merchandise to chains at price discounts, small independents, small chains, and independent supermarkets would discontinue orders for their advertised brands (DeLoach, 1960). Dairy and bakery products industries, the two food industries that lead in food chain integration, have been good examples of high-profit potentials. Significant cost economies arise from volume deliveries of bread and milk to retailers. Because of the flat legal minimum-pricing provisions of milk laws in several states and/or the danger of granting varying quantity discounts to retailers under the Robinson-Patman Act, the safest and sometimes the only legal way for retailers to benefit from the pricing situa-

tion is through integration into milk processing and sometimes into the baking business.

Except for the purchase of meat through packer-owned and -operated wholesale outlets, only a small proportion of the large chains seem to rely on wholesalers for their supplies of merchandise (table 27).

One of the main reasons retailers give for direct buying from processors and growers is that it gives them more control over their supply. This seems to become more important as their retail sales increase, creating a greater need for stocking uniform quality products and brands in their store outlets (Scott and Williams, 1959). In this respect, it is interesting to note that some large chains have decentralized their procurement activities for branded merchandise and have retained a central procurement office for products bought on a specification basis.

Absorption of the wholesaling functions of collection and dispersion into a retail organization does not eliminate the functions; however, it normally reduces the number of selling transactions and title transfers that are required in moving products through traditional marketing channels. Unless these transaction reductions are offset by inefficient operations within the retail firm (which is often possible), procurement costs

Table 27. Grocery Chains Supplied by Wholesalers, 1958

Number of stores per chain	Total number of stores	Number that buy from wholesalers	Per cent of total
Total.....	28,500	8,325	29
2-3.....	5,700	4,500	79
4-5.....	1,750	1,250	71
6-10.....	1,650	775	47
11-25.....	2,000	750	38
26 and over.....	17,400	1,050	6

SOURCE: Mueller, R. W., "1958 Food Store Sales Up 4.9 per cent—Reach \$48.275 Billion," *Progressive Grocer*, Vol. 38, No. 4 (New York: 161 Sixth Ave., April 1959), p. F-19.

Table 28. Sales of Grocery Wholesalers, United States, 1948 and 1958

Type of wholesaler	1948 sales		1958 sales		Change 1948-1958
	thousand dollars	per cent of total sales	thousand dollars	per cent of total sales	per cent
General-line grocery.....	5,772	51.5	8,665	42.7	50
Voluntary groups.....	1,627	14.5	4,063	20.0	150
Retailer-owned cooperatives..	582	5.2	2,176	10.7	274
Other general-line.....	3,563	31.8	2,425	12.0	-32
Confectionary.....	358	3.2	664	3.3	86
Meat and meat products.....	1,977	17.6	3,802	18.8	92
Specialty line and fish.....	3,107	27.7	7,120	35.2	129
Total.....	11,213	100.0	20,251	100.0	81

SOURCE: Compiled from Federal Trade Commission, *Economic Inquiry into Food Marketing; Part I: Concentration and Integration in Retailing* (Washington: Govt. Print. Off., 1960), p. 203. The 1958 breakdowns of general-line grocery sales are estimates based on the Commission's survey data and the 1954 *U. S. Census of Manufacturing*.

should be favorably affected. The industry economists who participated in the Los Angeles meeting cited lower transaction and transfer costs as important factors in the lower delivered costs to chains. These claims of lower costs and prices were questioned by representatives of brokers and some processors who appeared before the Subcommittee of the Select Committee on Small Business of the House of Representatives in San Francisco and Denver in 1959.

Group Buying

Retailer-owned cooperative warehouses. Between 1948 and 1958, the wholesale business done by the retailer-owned cooperative groups was the fastest-growing segment of the food wholesaling business (table 28).

Both the cooperative and voluntary types of chains grew rapidly while the remaining general-line grocery wholesalers lost sales. Nevertheless, the cooperatives still accounted for only a small part of the total wholesale food markets, transacting about one-half as much business as the voluntary chain wholesalers.

Group buying through cooperatives has developed much more in the Pacific

Coast states than elsewhere in the United States (table 29).

Retailer-owned cooperatives in the Pacific Region sold 37 per cent of the total cooperative wholesale sales in the United States in 1948 and 32 per cent in 1958, according to the Federal Trade Commission. The three largest cooperatives in California accounted for about one-fourth of the total United States sales of cooperatives in both 1948 and 1958.¹⁴ These three cooperatives ranked first, second, and fifteenth in national wholesale sales of cooperatives in 1958. A fourth cooperative in California, the San Francisco Grocery Company, had sales of about \$15 million in 1958. The Commission also found that total cooperative sales in California in 1954 amounted to 54 per cent of the sales of all general-line wholesale sales, compared with 18 per cent for the United States.

The increase in sales of the California cooperative wholesalers amounted to about two and one-half times in the ten-year period while the retail sales of their members increased nearly as much. This compares with an increase of 98 per cent in total retail sales of all grocery stores in California (table 3). The retail sales of the members of these cooperatives ac-

¹⁴ The number of cooperatives in California was reduced from five to four in July, 1957, when Spartan Grocers, Inc., merged with Certified Grocers of California, Inc. In referring to prior periods, the two organizations will be considered as one.

Table 29. Organization of National Retailer-Owned Grocers, Inc., 1958

Regional buying group	Location	Buying groups	Retail members	Wholesale sales	Retail sales of members
		number		million dollars	
Pacific Mercantile Co.....	San Francisco	12	7,200	721	2,743
Central Retailer-Owned Grocers, Inc. (CROG)	Chicago	37*	7,398	492	1,816
Eastern Division, NROG.....	New York	36†	5,360	182	583
Total NROG.....	.....	85	19,958	1,396	5,142
All United States groups reporting.....	.....	146	33,007	2,031	6,939‡

NROG AS PER CENT OF UNITED STATES					
.....	.....	58	61	69	74

* Data are for 32 of the 37 cooperatives.

† Data are for 32 of the 36 cooperatives.

‡ Data are for 128 of the 146 cooperatives.

SOURCES: Compiled from Federal Trade Commission, *Economic Inquiry into Food Marketing; Part I: Concentration and Integration in Retailing* (Washington: Govt. Print. Off., 1960), pp. 161, 172, 179, 197, and 201.

counted for about 29 per cent of total grocery store sales in California during 1948. This was increased to about 48 per cent of the total in 1958, which compared with only 16 per cent for the United States. In spite of this rapid growth in sales, no new California cooperatives were formed from 1948 through 1958.

The Federal Trade Commission's 1960 report shows that the three large cooperatives were all among the 12 cooperative owners of Pacific Mercantile Company, San Francisco, California. The nine other cooperatives were scattered throughout the other western states and Hawaii, two of them in Washington and one in Oregon. These latter three were the only cooperatives located in those two states. The wholesale sales of the 12 amounted to over \$700 million in 1958, about 70 per cent of which was accounted for by the three cooperatives in California. The 12 cooperative members of Pacific Mercantile had a total of 7,200 members, two-thirds of which (4,817) were members of the three large California associations. Retail sales of members of the 12 cooperatives totaled about \$2.8 billion in 1958. About \$2.1 billion of the sales were made by the California cooperatives.

The Pacific Mercantile Company and two other regional buying groups owned the National Retailer-Owned Grocers, Inc. (NROG), Chicago, Illinois. These two other groups are Central Retailer-Owned Grocers, Inc. (CROG), Chicago, Illinois; and Eastern Division National Retailer-Owned Grocers Cooperative, Inc., New York, New York. Pacific Mercantile was the largest of the three in terms of sales (table 29). More than half of all the retailer-owned cooperatives in the United States are members of NROG.

The three regional groups are non-profit corporations that provide advisory service and information to their members and do some buying for them. The buying is only a fraction of their warehouse members' total volume and consists largely of National Retailer-Owned Grocers labeled goods. The regional groups maintain no warehouses and shipments are made directly to members. The bulk of the buying of the retailer-owned groups is done at the local warehouse level. The primary functions of the national headquarters groups include licensing the users of brand names and trademarks owned by them, and handling insurance arrangements for their members.

In 1958, the 4,817 members of the

three large California cooperatives included 62 that owned chains with four stores or more, for a total of 669 stores (table 30).

It is not clear from the Federal Trade Commission report whether the 4,817 cooperative members represented 4,817 stores or whether each was a separate firm, since the cooperatives varied in reporting membership. If each member represented one store, then 40 per cent of all the grocery stores in the state were affiliated with one of these three cooperatives. But if each member was a separate firm, the 4,817 members operated a minimum of 5,424 stores in 1958, 45 per cent of the total number of grocery stores in California. This conservative estimate, based on table 30, assumes that the 4,755 members reported as owning three stores or less owned only one store each.

Cooperative wholesalers, in contrast to voluntary groups, make few sales to non-members. In 1958, both California and United States cooperatives made 99 per cent of their sales to their own members. However, the members did not make all of their purchases through the cooperatives. The 1958 wholesale sales of \$552 million of the California cooperatives amounted to \$626 million in retail sales, allowing for a 20 per cent gross markup, according to the Federal Trade Commission. This estimate represented only 30 per cent of the estimated total retail sales of their members. Comparable per-

centages for the United States were 34 and 35 per cent for 1948 and 1958, respectively. Thus the rapid sales gain during this period was a result of obtaining new members and the sales growth of these members, rather than of an increased proportion of purchases from the cooperatives.

The Commission also reported that retail sales of the members of Certified, the largest cooperative group in California and in the United States, amounted to \$1.4 billion in 1958. Only three corporate chains in the United States had sales exceeding this volume. Certified's sales were all concentrated in 12 counties of southern California, and one county each in Nevada, Arizona, and Hawaii. The retail sales of the members of Certified accounted for 35 per cent of the total food store sales of the counties in which they had members in 1954. This increased to 42 per cent in 1958. The members of United Grocers, San Francisco, accounted for 15 to 20 per cent of all food sales in the counties in which they had members in 1954, and 20 to 30 per cent in 1958. In 1958, Safeway had 10.4 per cent of the market in its operating area, Atlantic and Pacific Tea Company had 12.9 per cent, and Kroger had 11.0 per cent.

The low percentages of total purchases from cooperative warehouses by member firms fail to disclose the actual concentration of purchasing power of some cooperatives. Certified had wholesale sales

Table 30. Chain Store Members of California Retailer-Owned Cooperatives, 1958

Size of chain	Chains			Stores		
	Total in California	Members of cooperative	Per cent of total	Total in California	Members of cooperative	Per cent of total
<i>number of stores</i>	<i>number</i>			<i>number</i>		
4-10.....	73	46	63	408	267	65
11 and over.....	28	16	57	1,315	402	31

SOURCE: Compiled from Federal Trade Commission, *Economic Inquiry into Food Marketing; Part I: Concentration and Integration in Retailing* (Washington: Govt. Print. Off., 1960), p. 166 and Appendix, table 6.

that accounted for \$417 million in retail sales after allowing for markup. These sales would rank Certified about tenth in relation to national chains—about the size of Jewel Tea. This is equivalent to all of the sales of Thriftmart, Lucky Stores, and Mayfair Markets, the three largest corporate chains in California next to Safeway. The members of Certified obtained only about 30 per cent of their total requirements from Certified. Discounting the 42 per cent of all food business in its operating area by this amount left 12.6 per cent, which was comparable to the average share of local markets served by the three largest national corporate chains. However, 80 per cent of the members of Certified were estimated to be in Los Angeles County. Assuming that the members in Los Angeles County purchased a proportionate share of supplies from Certified, they accounted for \$339 million in retail sales, allowing for retail markup. These sales accounted for 18 per cent of the \$1.9 billion in total food store sales in Los Angeles County in 1958.

Dry groceries were the most common type of commodity purchased by members from retailer-owned cooperatives (table 31).

Produce and meat were not carried by

a majority of the groups, but the proportion of groups handling these products appeared to be increasing. Between 1948 and 1958, the frozen-food group was added by more cooperatives than any other commodity group. However, the proportion of all purchases made through cooperative wholesalers by their members remained at near one-third of their total requirements. In view of this, it is doubtful if commodity group coverage increased to any significant extent during the last ten years.

The operating expenses of the retailer-owned cooperatives were considerably lower per sales dollar than for other types of wholesale organizations. Table 32 shows that total operating expenses of the cooperatives amounted to only 4.4 per cent of sales, compared with 7.4 per cent for the voluntaries, and 7.5 per cent for all general-line grocery wholesalers.

According to cooperative and chain store officials, these lower costs were due to the selective and limited product mix sold to members, the performance of fewer services, and the lower selling and inventory costs. As evidence of the latter, sales per establishment and per employee were higher, and inventories and payroll as per cent of sales were lower than for either of the voluntary groups or for all

Table 31. Commodities Purchased Through Retailer-Owned Cooperative Groups, United States, 1948 and 1958

Commodity	Number of cooperative groups purchasing commodity		Per cent of total cooperative groups purchasing commodity	
	1948	1958	1948	1958
Dry groceries.....	130	142	100	92
Nonfoods.....	61	103	47	72
Frozen foods.....	11	84	8	58
Dairy items.....	34	64	26	44
Produce.....	27	42	21	29
Meat.....	15	28	12	19
TOTAL COOPERATIVE GROUPS				
	130	144	...	..

SOURCE: Federal Trade Commission, *Economic Inquiry into Food Marketing; Part I: Concentration and Integration in Retailing* (Washington: Govt. Print. Off., 1960), p. 167.

Table 32. Establishments, Sales, and Expenses of General-Line Grocery Wholesalers, 1954

Type of wholesaler	Establishments	Sales	Per cent of sales to			Sales	
			Inventories	Operating expenses*	Payroll	Per employee	Per establishment
	<i>number</i>	<i>million dollars</i>	<i>per cent</i>			<i>thousand dollars</i>	
General-line grocery.....	3,320	7,354	7.4	7.5	4.4	88.8	2,214
Voluntary group.....	574	2,464	6.7	7.4	4.5	95.5	4,292
Retailer-owned cooperative group.....	193	1,298	5.8	4.4	2.7	153.8	6,726
Cash-and-carry depots...	291	140	8.2	4.2	2.4	156.0	481
Other general-line firms..	2,262	3,452	7.6	8.9	5.1	72.4	1,526

* Including payroll.

SOURCES: U. S. Bureau of the Census, *U. S. Census of Business: 1954; Wholesale Trade—Summary Statistics* (Washington: Govt. Print. Off., 1957), Vol. III, p. 1-4.

general-line wholesalers. The costs of the cooperatives were about in line with those of cash-and-carry food depots.

The retailer-owned cooperatives have some nationally advertised private labels, and a few of the large cooperatives have integrated into food processing. The Federal Trade Commission found only seven cooperatives integrated into food processing. These seven owned a total of nine manufacturing plants that had total shipments of \$13 million in 1958. Cooperative officials usually gave four main reasons for the lack of integration into food manufacturing. These were: (1) Cooperatives are not obligated to provide all of the merchandise required by member firms. This condition exists because the firms are under different ownership and each has its own merchandising policies with respect to products and brands. Consequently, the cooperative is not under the same pressures as large chains to develop stable sources of supply for large quantities of uniform quality products. (2) The cooperative usually has a shortage of investment capital, a condition that is inherent in the cooperative-type organization, which has a legally limited right to accumulate reserves. (3) Member firms are reluctant to delegate power to their cooperative. (4) Membership turnover is high. In

fact, most member contracts are short term and easily severed so that the cooperative cannot make long-range plans with any great certainty. For example, the recent loss of the large Fox Market (Los Angeles) account by Certified was sufficient to affect adversely the annual sales of Certified.

The retailer-owned cooperatives were developed mainly to give single-store firms and small chains an opportunity to compete effectively with large chains in buying merchandise. It is clear from the Commission data that the total volume of products purchased by most of the cooperatives is equal to, if not in excess of, the volume of some competing chains. Under the provisions of the Robinson-Patman Act, therefore, it can be assumed that the cooperatives are entitled to the same quantity discounts as chains, provided the merchandise and services are identical. However, some managers claim they lack the resources and the decision-making power to take quick action when merchandise price advantages would accrue to the members as a result of timed purchases. Some cooperative managers also claim that much of the competitive advantage they achieve in procurement from suppliers is dissipated by high distribution costs to member stores or firms with low sales

**Table 33. Wholesale Sales of Affiliated Groups in California,
1948, 1954 and 1958***

Group	1948	1954	1958	Change, 1948-1958
	million dollars			per cent
Cooperatives				
3 largest.....	170	350	507	200
All 4.....	†	...	522	...
Voluntaries				
3 oldest.....	36	133	238	568
All 4.....	...	...	327	...

* Total sales, including sales to nonmembers.

† Blanks indicate data not available.

SOURCES: Estimated from Federal Trade Commission, *Economic Inquiry into Food Marketing; Part I: Concentration and Integration in Retailing* (Washington: Govt. Print. Off., 1960), pp. 179 and 187; letter from Whitney, S. N., Director, Bureau of Economics, Federal Trade Commission, Washington, D.C., April 4, 1960.

volume. Some of the cooperatives have changed their membership requirements to discourage firms with small sales volume from joining the cooperative; other have added service charges that discourage smaller members from continuing their membership, which is another indication of the difficulties small retail stores and firms are having in their struggle to survive.

The rapid growth of cooperative buying during the past decade, and the fact that several strong regional chains have found it to their advantage to become affiliated with and to purchase through such organizations, reflects the competitive success of some of these cooperatives in the area of merchandise procurement. This success has been particularly noticeable in California.

Voluntary groups. These wholesaler-sponsored voluntary groups were second only to the retailer-owned cooperatives in the growth of wholesale sales between 1948 and 1958. Their sales in the United States increased by 150 per cent, compared to an average increase of 81 per cent for all wholesale food and 50 per cent for the entire general-line grocery group (table 28). The voluntary groups

accounted for 47 per cent of the sales of the general-line grocery group and 20 per cent of total wholesale food in 1958, compared to 25 per cent and 11 per cent, respectively, for the retailer-owned cooperatives. Even though the voluntaries grew more slowly, their total sales were about double those of cooperatives.

In California, voluntaries had smaller total annual sales but grew more rapidly than cooperatives (table 33). Voluntaries in California accounted for 5 per cent of United States total sales of voluntaries in 1948 and 11.2 per cent in 1958, which is much less than California's share of the total United States sales of cooperatives.

According to the Federal Trade Commission, the four voluntaries in California in 1958 sponsored 3,176 stores and sold to 13,594 affiliated stores.¹⁵

Sponsored stores purchased an average of \$78,516 in supplies from their wholesale sponsor. The retail sales volume of the sponsored stores was quite small; 80 per cent had annual sales of less than \$375,000, 10 per cent had sales between \$375,000 and one million dollars, and 10 per cent more than one million dollars. However, the sponsored stores were

¹⁵ Letter from S. N. Whitney, Director, Bureau of Economics, Federal Trade Commission, Washington, D. C., April 4, 1960. However, according to a letter from E. J. Kapun, Assistant Secretary, National-American Wholesale Grocers' Association, Inc., New York, March 2, 1960, they had six members in California that sponsored wholesale groups in 1959.

**Table 34. Commodities Purchased Through Voluntary Groups,
United States, 1948 and 1958**

Commodity	Number of voluntary groups purchasing commodity		Per cent of total voluntary groups purchasing commodity	
	1948	1958	1948	1958
Dry groceries.....	150	301	93	91
Nonfoods.....	84	200	52	61
Frozen foods.....	39	133	24	40
Meat.....	13	79	8	24
Dairy items.....	30	77	19	23
Produce.....	33	73	20	22
TOTAL VOLUNTARY GROUPS				
	161	330	..	..

SOURCE: Federal Trade Commission, *Economic Inquiry into Food Marketing; Part I: Concentration and Integration in Retailing* (Washington: Govt. Print. Off., 1960), p. 220.

on an average larger than the other customers of these voluntaries; only 4 per cent exceeded one million dollars in annual sales. Of the four voluntary groups in California, the smallest and the only one affiliated with a national headquarters group, sponsored 50 stores; the largest sponsored about 1,125 stores.

Two of the voluntary groups made acquisitions between 1948 and 1958; one acquired 11 wholesale facilities and one manufacturing plant; the other a warehouse unit. Thus, the rapid growth in sales shown in table 33 was in part attributable to acquisitions. Only one voluntary group reported ownership of manufacturing facilities to the Federal Trade Commission. It operated eight ice cream plants with sales totaling \$418,000 in 1958. None of the four voluntaries owned any retail stores in 1958; however, one of the four was a subsidiary of Mayfair Markets, a retail grocery chain with 66 stores in 1958, 62 of which were located in California.

Most voluntary groups sell dry groceries; only a small proportion of them sell perishable foods to their members (table 34).

The number of voluntary wholesalers offering meat increased most in the ten-year period. Except for frozen foods,

there was little shift in the proportion offering other commodity groups. This pattern of commodity coverage was quite similar to that of the cooperative groups; however, a somewhat larger share of the cooperatives offers nonfoods, frozen foods, dairy items, and produce. Apparently both types of affiliated groups find their greatest advantage in dry groceries. Table 28 shows that sales of specialty-line and fish wholesalers increased 129 per cent between 1948 and 1958; they do not appear to have lost sales to the affiliated groups.

The three voluntary groups in California that were in business for the entire ten years increased the share of their total business going to sponsored stores from 75 per cent of the total in 1948 to 85 per cent in 1958. This was substantially higher than the United States average of 69 per cent for 150 voluntaries in 1958, but it was lower than the 99 per cent of sales going to members of the three large cooperatives in California. Only 52 per cent of the sales of the fourth voluntary group in California was made to sponsored stores.

The 3,176 stores sponsored by the voluntary groups and the minimum 4,817 stores that were members of cooperative groups accounted for 66 per cent of the

total number of grocery stores in the state in 1958. Some of these voluntary stores belonged to chains but a much smaller share of corporate chain stores were affiliated with voluntary groups than was true of the independents. As a result, more than two-thirds of the independent grocery stores were members of cooperative or voluntary affiliated groups.

The growth of the voluntaries in California is indicative of their advantages to independent store operators. Assured of volume outlets by contract, voluntary wholesalers are able to buy in large quantities and receive price discounts. They also have made progress in spreading advertising and some managerial service costs. Like the cooperatives,

voluntaries have had difficulty holding member stores under contract. But the voluntaries would appear to possess a greater potential for vertical integration because of their central ownership.

It appears that both the voluntary and retailer-owned cooperative groups have been quite effective in getting the maximum quantity discounts on merchandise. Up to the point of distribution to retail outlets, they seem to be competitive with the chains in this respect. The advantages that chains possess appear to lie in routinized merchandising policies, centralized decision making, and certain advantages of size, geographical distribution, and ability to obtain capital.

RELATION OF OPERATING POLICIES TO PROCUREMENT

IN RESPONSE to rising production prices and to changes and anticipated changes in consumer demands, food retailers have altered their merchandising policies and practices. Innovating firms have been rewarded with relatively high profits. Firms resisting these changes have lost profits and in many cases have discontinued business. As a result, most of the industry has progressively adopted the new ways of doing business, either by accepting the innovations or developing other new methods.

Merchandising Policies

Some of the new developments in merchandising policies and practices have had direct and indirect effects upon procurement policies and practices. Changes in merchandising techniques, innovation in the form of firm organization, larger stores and firms, and new developments in capital markets have all contributed to changes in the organization and financial policies of retail grocery firms.

New combinations and larger aggre-

gates of resources have required that internal management controls be altered to maintain efficient communication within the firm. All of these policy changes have had an indirect effect on procurement practices.

Merchandising policy, even though comprising only one aspect of the total entrepreneurial function, reflects the basic objectives of the management of a firm. These objectives can be placed in categories only in broad terms, such as maximum profit, output, or growth rates. Many examples can be pointed to, ex post facto, as indications of shifts in underlying objectives of a firm that were expressed in merchandising policies. These in turn led to radical shifts in performance, including procurement. Nevertheless, merchandising policy itself is difficult to quantify. Shifts in management personnel within a firm often reflect policy changes. Over very short periods of time the net income of a firm is frequently altered considerably by changes in policy, even though the struc-

ture of the firm and the institutions which surround it may remain unaltered.

Pricing policy. Kaplan, Dirlam, and Lanzillotti in their recent book, *Pricing in Big Business* (1958), suggest five distinguishable objectives in company pricing policy. They are (1) achieving a target return on investment, (2) stabilizing prices and margin, (3) maintaining or improving market position, (4) meeting or following competition, and (5) achieving product differentiation.

Kaplan's analysis was based on published reports and personal interviews with top management of each of the firms concerned. He admitted that many of the firms were reluctant to think of a price policy apart from the context of general company policy; thus, his classifications were determined somewhat arbitrarily by observation. These classifications probably would be more relevant to a classification of merchandising policy as a whole rather than pricing policy alone. Nevertheless, the fact that Kaplan was able to classify firms as to policy objectives suggests that differences in pricing policy are observable and lead to differences in procurement policies.

The difference between the wholesale and retail price is the gross retail margin. This margin must be sufficient to enable a retailer to pay for all the necessary costs of production, transfer of ownership, service to consumers, and in the long run, to pay a competitive return on investment. If expansion of the industry is needed, profits must be adequate to bring new risk capital into the industry.

In multiple product firms, such as those in the food retailing industry, the goal is an aggregate gross margin for all products. Pricing policy must be con-

sistent with a given aggregate gross margin that is sufficient to cover costs, but it is meaningful only in terms of margins applied to individual commodities and groups of commodities.

One conceivable general pricing policy, and the one generally thought to exist in retailing, is the addition of a fixed percentage margin to the purchase price of goods. However, in food retailing, a variable percentage margin is commonly added to the purchase price of goods.¹⁶ The size of this margin appears to vary, by commodity groups, inversely with the rate of turnover of the commodity. That is, slow-moving items have high percentage margins, while fast-moving items have low percentage margins.

The policy of adding a variable percentage margin to the price of goods, which is inverse to the rate of turnover, is consistent with marginal cost pricing. Slow-moving goods cost more to sell because of the higher space-time units required to sell them, as well as the slower turnover of capital in such products. The cost of shelf space is a fixed cost in total, but it may be a variable cost in terms of turnover. Because of the product competition for space in multiple product grocery stores, managers try to equalize dollar profits for commodity groups and for linear feet of shelf space by varying the markup or margin and the shelf space allocated to products. Since product turnover rates reflect relative consumer demands for alternative products, retailers' actions are consistent with economic theory and profit maximization. Merchandise turnover rates and pricing policies of retailers, in turn, are reflected in their procurement policies by affecting the choice of products and the prices that can be paid for them in order to realize gross target returns.

¹⁶ Conversations with industry price makers suggest that the margin is the *result* of a subtraction of purchase from selling price. That is, selling prices are determined independently of purchase prices on the basis of competition and past experience. Therefore, margins are analytically determinable only *ex post facto*. Many industry people distinguish between *anticipated gross* and *realized gross* margin. The first may be used as a goal in pricing. The latter is the margin actually received.

**Table 35. Annual Turnover of Grocery Products Compared
with Per Cent Margin on Sales**

Grocery product	Annual turnover rate*	Rank (low to high)	Per cent margin on sales	Rank (high to low)	<i>d_i</i>
All grocery products.....	14		18.2		
Diet foods.....	3	1	27.0	3	2
Chinese foods.....	5	2	24.3	10	8
Salt, seasonings and spices.....	6	3	24.6	9	6
Pickles, olives and relishes.....	7	4	26.7	4	0
Housewares.....	7	4	25.1	8	4
Vegetables, dried.....	7	4	25.4	6	2
Meat, canned.....	7	4	21.0	17	13
Health and beauty aids.....	9	8	31.3	1	7
Fruits, dried.....	9	9	22.1	14	5
Syrups and molasses.....	10	10	17.9	25	15
Household and laundry supplies.....	10	10	28.3	2	8
Macaroni products, dry.....	11	12	18.8	22	10
Jams, jellies and spreads.....	12	13	23.6	12	1
Fish, canned.....	12	13	19.4	20	7
Candy.....	12	13	25.5	5	8
Paper products.....	13	16	23.4	13	3
Baby foods.....	13	16	14.1	31	15
Soaps and detergents.....	13	16	10.5	34	18
Juices, canned.....	13	16	19.4	20	4
Prepared foods, canned.....	13	16	20.8	18	2
Beverages.....	14	21	12.1	33	12
Fruit, canned.....	14	21	21.6	15	6
Desserts.....	14	21	16.7	27	6
Vegetables, canned.....	15	24	21.4	16	8
Cookies and crackers.....	15	24	25.3	7	17
Baking and batter mixes.....	15	24	17.5	26	2
Salad dressing and mayonnaise.....	15	24	15.5	29	5
Condiments and sauces.....	16	28	18.4	23	5
Pet foods.....	18	29	20.2	19	10
Milk, canned and dry.....	18	29	13.5	32	3
Soups.....	20	31	15.0	30	1
Snack and party foods.....	20	31	23.9	11	16
Baking needs.....	21	33	16.5	28	5
Shortening.....	23	34	9.7	35	1
Breakfast foods.....	26	35	18.1	24	11
Cigarettes and tobacco products.....	28	36	6.0	37	1
Sugar.....	31	37	8.0	36	1

* Number of times merchandise turned over per year.

SOURCE: Progressive Grocer, *Super Valu Study* (New York: 161 Sixth Ave., 1959), pp. 1-32.

In table 35 grocery products are classified into 37 product groups. For each product group, the annual turnover rate and the percentage gross margin on sales have been computed. These two variables have been independently ranked. The turnover rates are ranked from the low-

est, or slowest moving, to the highest; the margins have been ranked from the highest percentage to the lowest. A statistically significant correlation of these two rankings was found, which tends to confirm the general price policy suggested.¹⁷

¹⁷ The Spearman Rank Correlation Test was used to verify this conclusion statistically. This test is appropriate because (1) it is a nonparametric statistical test; that is, no assumption is necessary regarding the distribution of the sample points; and (2) it does not specify any particular form of relation between the two ranks, which is appropriate because the relation is not ex-

However, such a conclusion is not warranted in comparing grocery products as a group with produce, meat, baked goods, dairy products, and frozen food. This is to be expected because other factors such as perishability and the use of specialized equipment have a significant effect upon costs of selling some products, whereas selling and other retail handling costs of subgroups of grocery products are relatively homogeneous. The *Super Valu Study* (Progressive Grocer, 1959) found a close relation between the per cent of total display space occupied, the per cent of total sales, and the per cent of total gross dollar margins (table 36). It also showed that the gross dollar margin tends to be related to turnover rates (table 35). The study suggests that proper space allocation would tend to equate these three percentage relationships, but some small deviations would be necessary because of other factors connected with product-mix policy. According to *This Week Magazine* (1960), one grocery store studied uses these three percentages in the allocation of its shelf space.

This general pricing policy imposes restraints on the other aspects of merchandising policy—product mix, promotion, and volume control. On the other hand, prices may be adjusted in response to the other dimensions of merchandising policy. For example, price “specialing,” which is characterized by weekend sales, is a form of promotion and a refinement of the general pricing policy. In fact, this policy helps explain the reason for the frequent selection of

high-turnover items as specials. High turnover products can economically be sold at low margins because of their low space-time cost. In addition, these products exert more pull on potential customers than do low-turnover products.

Price specials have implications for suppliers because of their effect upon the quantities of specialized products demanded. An analysis of the Los Angeles beef market by Williams and Uvacek (1960) indicated rather pronounced weekly fluctuations in purchases of fresh beef by chains. Among individual chains, increases in purchases from one week to the next of more than 100 per cent and reductions of more than 50 per cent were not unusual. They found a marked similarity among chains in their timing of increases and decreases in purchases. They attributed this similarity to a uniform recognition of changing price relationships and economic conditions and to the desire to meet competition with competition.

Williams and Uvacek reported that several of the chain buyers interviewed in Los Angeles indicated that their sales volume fluctuated even more than did their purchases. They were able to absorb some of the variations in sales by varying inventories. The chain buyers indicated that retail sales volume in any week could be changed by 50 per cent or more through price specials. The influence of factors other than price specials on volume moved was considered to be small.

Williams and Uvacek concluded that because of the effect of price specials on

pected to be linear. The statistical hypothesis to be tested is that there is no association between the two ranks. The test will determine the probability of this hypothesis being rejected. According to the data from table 35, this probability was found to be .0001; there is only one chance in 10,000 that these two ranks are not correlated. As a result, this statistical hypothesis of no association can be rejected with considerable confidence and the conclusion accepted that there is a significant inverse relation between the annual turnover rate and the percentage gross margin on groups of grocery products. The data computed from table 35 are:

$$n = 37$$

H_0 : No association
between ranks

$$r' = 1 - \frac{6\sum di^2}{n(n^2 - 1)}$$

$$r'\sqrt{n-1} : N(0,1)$$

$$\sum di^2 = 2586$$

$$r' = .6935$$

$$4.161 = N(0,1)$$

$$p = .0001$$

product movement, the Los Angeles chains might have affected producer and wholesale prices at times. It appeared possible that within short periods of 2 or 3 weeks severe reductions in purchases by chains probably could influence prices at the producer and wholesale levels to some extent. However, doubt was expressed that the chains could influence longer-term prices because of the perishability of beef and the size of the wholesale market. The Williams and Uvacek report stated that the ability of the chains to increase beef sales by using price specials is encouraged by suppliers when supplies are large and it is desirable to move large quantities of products to improve the market. However, this ability can also be a disadvantage. When specials are placed on substitute meat products, such as chicken, the movement of beef may drop rather sharply. These repercussions are also felt in the wholesale and live markets, and they are often resented by both processors and producers.

Product-mix policy. Policy with respect to product mix involves shelf-space allocation (table 36), inventory control, and the selection of products and brands.

The relation of retail margins to turnover rates and space allocation has already been discussed. Other factors related to the proper determination of space allocation are size and type of package, number and variety of items in a given product group, number of brands of products to be stocked, and frequency of restocking.

Policy decisions regarding inventory relate to a choice among available methods. The choice is influenced by technological changes and the extent of integration of wholesale and supplier functions into the retail firm. For example, General Foods has recently announced plans for a new nationwide food distribution system that will allow customers to reduce inventory levels about 25 per

cent. Such centers could decrease the value of retailer-owned warehouses and increase the dependence upon store-door delivery. Store inventory levels can be maintained at any desired point by electronic equipment which automatically records withdrawals and orders stock replacements.

Shelf-space allocation influences procurement owing to the effect of store displays on product movement. In turn, retail sales are reflected in the relative demands for products from suppliers. The value of display space is now recognized by the rental of specified areas of shelf space by suppliers. P. Lorillard Company, for example, has begun paying supermarkets rentals of from \$5 to \$10 per month for eye-level shelf position.

The selection of brands and products to stock is another policy variable which affects suppliers. In 1958 the average supermarket stocked about 5,600 different items on its shelves, or nearly double that of 1946 (table 20). It is estimated that an average of 6,000 new products are submitted to retailers annually, from which about 500 are selected (*Food Topics*, 1959b). But for every new item accepted, many chains are forced to drop an item because of the lack of shelf space (*This Week Magazine*, 1960). Thus, pressure develops to enlarge store size, even though sales may not be increasing. Grocery Manufacturers Association estimated that about two-thirds of today's grocery sales are in products that are new or basically improved since 1946 (*This Week Magazine*, 1960). These new products are most common in the following product groups, in the order mentioned: soaps and detergents, cake mixes, frozen foods, health and beauty aids, and canned fruits, vegetables and juices. Many of them are merely old products in new packages or in greater size and color variety. Many represent convenience features not available previously.

**Table 36. Grocery Products' Share of Display Space Compared
with Per Cent of Total Grocery Sales and Dollar Margins**

Grocery product	Per cent of grocery linear shelf feet	Per cent of total grocery	
		Sales	Margin
All grocery products.....	100.0	100.0	100.0
Household and laundry supplies.....	8.2	5.5	8.6
Vegetables, canned.....	6.7	5.0	6.2
Candy.....	6.5	4.0	5.3
Beverages.....	6.2	12.1	8.0
Cookies and crackers.....	5.5	4.7	6.6
Paper products.....	4.9	4.6	5.8
Fruit, canned.....	4.5	3.9	4.6
Soaps and detergents.....	3.9	4.3	2.5
Housewares.....	3.6	1.6	2.2
Health and beauty aids.....	3.5	4.1	7.0
Baby foods.....	2.9	2.1	1.6
Cigarettes and tobacco products.....	2.8	10.8	3.2
Baking and batter mixes.....	2.7	2.9	2.8
Juices, canned.....	2.6	1.8	2.0
Jams, jellies and spreads.....	2.6	2.2	2.9
Breakfast foods.....	2.4	3.1	3.1
Baking needs.....	2.2	3.1	3.0
Condiments and sauces.....	2.2	1.2	1.1
Snacks and party foods.....	2.1	2.2	2.8
Pickles, olives and relish.....	2.1	1.2	1.7
Soup, canned and dehydrated.....	1.9	3.0	2.5
Pet foods.....	1.7	1.4	1.6
Fish, canned.....	1.5	2.4	2.5
Salt, seasonings and spices.....	1.3	.8	1.1
Salad dressing and mayonnaise.....	1.3	.8	1.2
Vegetables, dried.....	1.3	.5	.7
Diet foods.....	1.2	.3	.5
Macaroni products, dry.....	1.1	.8	.8
Syrups and molasses.....	1.0	.5	.5
Desserts.....	1.0	1.2	1.1
Prepared foods, canned.....	.9	.9	1.0
Sugar.....	.9	2.2	1.0
Fruit, dried.....	.9	.7	.8
Pet supplies.....	.9	.1	.1
Milk, canned and dry.....	.8	.8	.6
Chinese foods.....	.7	.3	.4
Meat, canned.....	.7	.7	.8
Shortenings.....	.6	1.4	.7
Toys.....	.4	.3	.4
Miscellaneous.....	1.4	.3	.5

SOURCE: *Progressive Grocer, Super Valu Study* (New York: 161 Sixth Ave., 1959), p. 54.

The influence of this proliferation of products on suppliers is difficult to assess, *a priori*. Most of them are developed by old suppliers and are used as competitive devices in the suppliers' battle for retail shelf space. The over-all effect upon agricultural producers is probably slight because the raw products remain

unchanged in most cases. Even so, demand might be strengthened to some extent because of the promotional advantages inherent in new products. More important, however, is that demand may be altered among substitute products as new features are incorporated in new products.

Selection of brands and products influences the extent and nature of vertical integration. Private-label merchandise can either be contracted for on the basis of specifications or supplied by subsidiary plants, depending on prices, financial policies, and the availability of wholesale suppliers.

Suppliers of proprietary-label goods often react unfavorably to a private-label policy because they do not wish to become wholesale suppliers of specification merchandise and run the risk of selling exclusively on a price basis. They wish to protect vested interest in their respective labels and maintain their markets in small independents and supermarkets that are the principal outlets for national brands. They often prefer to increase their expenditures on promotion and a proliferation of differentiated products. If consumers can be sold on the merits of such new products, then retailers are forced to carry them, at least until such time as they can be imitated. This type of competition is a big factor in the flow of new products. It is also a part of the battle for shelf space now being waged among wholesale suppliers and integrated retailers.

Apparently the sales gains of private label goods (controlled and minor brands) compared with major advertised brands is leveling off. A. C. Nielsen Company reported that in 1951, 25.5 per cent of sales of 39 basic food product groups were accounted for by private labels. The percentage declined to 24.1 in 1955 and increased to 25.6 in 1958 for these 39 food groups. The number of private labels doubled in the last five years, but apparently the private label business, in total, is growing at only about the same rate as the entire food business. The Nielsen data obscure the cross-currents among and within some commodity groups. For example, Market Research Corporation of America found that private label business increased from 38 per cent of the total volume of frozen

vegetables in 1955 to 53 per cent in 1958; instant coffee increased from 12 to 31 per cent of the total in the same period (*Food Topics*, 1959a). Thus, while the over-all trend appears to have stabilized, significant changes are occurring in individual product groups, with concurrent shifts in the methods of procurement, especially through the integration of chains into the production of frozen foods and coffee.

The importance of product and brand selection as a dimension of managerial policy making and its direct influence upon procurement policies and practices were set forth by Robert A. Magowan, president of Safeway Stores. According to *Food Topics* (1959b), he stated that, since he assumed the presidency in 1955, 210 different products were reduced to 71. In canned goods an original 40 brand names were reduced to 6. This consolidation was accompanied by a decentralization in buying which reduced the number of supply divisions from 14 to 7 and the number of manufacturing, processing, and buying companies from 50 to 29.

Volume control. Volume control is closely related to product-mix policy. It is concerned with the total quantity of goods sold rather than the combination of products. It has affected procurement indirectly by altering financial and expansion policies—a determination of the number and size of stores, the services to be provided, and the number and amount of vertically integrated functions to be incorporated into the retail firm. More directly, volume control affects the use of existing facilities.

The purpose of volume control is to increase total net income by manipulating the supply of products or services to influence prices. If a seller is to benefit from such manipulation, three conditions must be present: (1) demand must be inelastic (less than one in absolute numbers), (2) entry into the market must be controlled, and (3) collusion

among existing firms must be feasible and to their mutual advantage.

The price elasticity of demand for all food at retail has been found to be much less than one, absolutely. Estimates vary somewhat, but the average is usually near the range of $-.3$ to $-.4$ suggested by Fox (1953). However, this average is a composite of commodities with price elasticities mostly in a range of $-.2$ to -1.0 . Thus, there is an aggregation problem in speaking of the elasticity of demand for all food at retail. However, authorities generally agree that the average is well below one, in absolute numbers, thereby fulfilling one of the conditions for profitable volume control.

Established multiunit grocery firms usually face different market entry problems from those faced by new firms. The latter need to establish their supply sources—a relatively minor problem for grocery firms with adequate capital, credit, and reputable management. Both new and established firms seeking to open stores in new or different communities must face up to the competitive environment in a proposed location. The risks of entry for an established multiunit grocery firm are less critical to the over-all performance of such a firm than they would be for a single-unit firm whose survival depends on the success of one retail outlet only. A few of the problems of entry are discussed below.

Even though there may be no legal or institutional restraints on opening a new store in any community, this does not obviate the competitive problems confronting the management of a new store. In communities where the number of consumers is expanding, a new store might find a place for its services without seriously “overstoring” an area. In other words, the rate of expansion in the number and/or size of retail stores

might correspond to the growth rate of the community. “Overstoring” may be vitally important in established communities with static populations. Competitive entry under this latter condition often disrupts the customer-sales balance among existing markets causing some stores to quit business or operate with higher unit costs, or lower wages for owner-operators, or lower returns to capital. Unless it is eliminated by competition, “overstoring” could increase the costs of marketing, with a resulting effect on retail prices and/or retail profits.

Chains often choose to buy and modernize existing stores rather than build or buy new stores in new locations. Firms without an established sales record are reported to have difficulty renting space in shopping centers. Some of the testimony before the Senate Select Committee on Small Business supported this claim of some discrimination in favor of multiunit firms over lesser-known or unknown independents in the selection of shopping center tenants (U. S. Congress, 1959). Since rentals are usually based on sales gross, the attitude of shopping-center owners in favoring proven management is a rational one.

In view of the geographic dispersion of the retail grocery industry and the relative abundance of most food items, it is doubtful if entry is restricted in any way by the inability of retail firms to buy supplies of merchandise. Affiliated buying groups apparently are competing effectively with corporate chains, judging from their relative growth. Membership requirements for joining buying organizations are usually quite reasonable, so affiliated independents can compete effectively for merchandise with their large corporate chain competitors.¹⁸

Bain (1959) states that “the condi-

¹⁸ Of 43 retailer-owned cooperatives reporting their membership requirements to the Federal Trade Commission, 9 specified stock purchase or deposit of less than \$1,000, 16 specified stock purchase or deposit in excess of \$1,000 and in 2 cases as high as \$6,000, 14 specified stock purchase or deposit of unspecified value, and 4 had only a minimum purchase requirement.

tion of entry to any industry is measured as the percentage excess of the maximum entry-forestalling price over minimal or competitive average costs."

A quantitative measurement of the effect on prices of restricted entry is impossible because neither the price level necessary to attract entry nor the minimum average total unit cost can be measured. But the size of any differential between the two should be reflected in excess profits. Until profits can be studied more thoroughly, the best conclusion regarding entry must be based on the structure of the market.

A third requirement for profitable volume control is probably the hardest to attain for this industry, except in a few local markets. Overt collusion among firms in any industry to control either prices or volume amounts to "restraint of trade" and is illegal. Tacit collusion to control volume is usually not feasible in the retail grocery trade because of the large number of competing firms in most markets and a lack of mutual advantage in any volume-control policy. Small independents have nothing to gain by volume limitation, because their gross sales are already too small. Large supermarkets were founded on precisely the opposite principle. Their competitive advantage is based on the efficiency of a large sales volume, so any volume limitation would undercut their basis for survival unless all firms followed the same policy and prices were adjusted accordingly.

Except in quite isolated local markets, where collusion could exist without fear of legal action and where entry could be restricted, the retail grocery business does not appear to satisfy the basic requirements for profitable volume control. On the contrary, freedom of entry, except for financial limitations, seems to characterize the industry.

Advertising and promotion policies. Corporate food retailers increased their total advertising expenditures from

\$41.5 million in 1947 to \$167.4 million in 1956, a gain of 303 per cent (Lamb, 1960). This accounted for 11 per cent of the \$398 million spent on all food advertising by corporations in 1947, and 17 per cent of the \$976 million spent in 1956. Thus, corporate retailers increased their advertising expenditures faster than food processors and wholesalers during this period. There was a 70 per cent increase in the number of retail food corporations, against an increase of 25 per cent for wholesale food corporations and a decrease of 1 per cent for food manufacturing corporations. Even if all retail firms, corporate and noncorporate, had been included in both years, it is probable that retailers would still have shown a relative increase in advertising expenditures.

The effects of advertising and promotion that are relevant to this study revolve around their effects upon the (1) total movement of product, (2) product mix, (3) fluctuations in total movement and product mix, (4) competition among retailers, and (5) competitive relationships among retailers and their suppliers. Within this frame of reference, several of the important methods of advertising and promotion are examined.

Price specials were cited as an important method of advertising and promoting, as well as an effective tool of pricing policy. Shelf-space allocation and display of product, together with in-store promotion activities, encouraged impulse buying, thereby affecting the commodity mix sold by retailers. A selection of given products and brands determines product mix and has promotional significance as well. Retailers often promote their own brands because they want to build consumer loyalty to the retail firm. Many retailers believe that shelf space should be used to build "firm loyalty" rather than "brand loyalty" for nationally advertised brands. "Firm loyalty" encourages "one-stop" shopping, establishing a locational advantage.

Cooperative advertising allowances are a common method of passing a share of the costs of retailers' advertising back to suppliers, according to a recent survey by *Food Topics* (table 37). These allowances make up a large share of retailers' total advertising budget. The advertising expenditures found in the *Food Topics* survey are categorized in table 38. This study found that most wholesale suppliers were dissatisfied with cooperative advertising allowances. However, they felt compelled to continue them.

Advertising allowances have become an important element in the negotiations between buyers and sellers as one of the terms of sale. Another reason for keeping the allowances is the differential that exists between national and local advertising rates. Suppliers usually pay the former, and retailers the latter, which are usually lower. As a result, retailers get more space for each dollar spent in newspaper advertising.

Retailers rate newspapers as the most effective advertising medium. In one survey, 93 per cent of the chains rated newspapers as either excellent or satis-

Table 37. Food Retailers Frequently Receiving Cooperative Advertising Allowances, Listed by Food Product Groups

Product groups	Chains	Affiliated groups
	per cent of total number	
Canned foods.....	87	96
Cooking and salad oils....	89	97
Crackers and cookies.....	88	94
Frozen foods.....	88	91
Lard and shortening.....	81	85
Macaroni products.....	76	81
Paper products.....	91	93
Soaps and detergents.....	95	100
Starch, bluing, and bleaches.....	84	93
Tea.....	76	81

SOURCE: Olsen, P. C., "Contract Terms Are Misunderstood: Specifics Needed," *Food Topics*, Vol. 14, No. 14 (New York: Food Publications, Inc., 708 Third Ave., Aug., 1959), p. 10.

Table 38. Use of Food Advertising Expenditures

Use of expenditures	45 chains	69 affiliated groups
	per cent of sales	
Total.....	2.0	1.9
Trading stamps.....	1.0	1.1
Cooperative advertising.....	.4	.6
Other.....	.6	.3

SOURCE: Olsen, P. C., "Contract Terms Are Misunderstood: Specifics Needed," *Food Topics*, Vol. 14, No. 14 (New York: Food Publications, Inc., 708 Third Ave., Aug., 1959), p. 10.

factory. Only 40 per cent gave equally high rating to television, 47 per cent to radio, and 45 per cent to circulars. The voluntary and cooperative chain group rankings concurred very closely with these percentages. It would appear, therefore, that retail food advertising tends to be locally or regionally centered. Economies (lower unit cost) in advertising appear to be an important cost factor within a trading area covered by a single newspaper. But the advantages of spreading costs often cited for national advertising media did not appear important to retail grocery firms. Even national chains advertised on a regional basis.

Affiliated buying groups have recognized the possible lower unit costs of collective advertising. In 1958, 91 per cent of the voluntaries and 86 per cent of the cooperatives performed this service for their members, according to the Federal Trade Commission. The only service outranking advertising was the purchase of dry groceries. The total and regional size of affiliated groups substantiates the hypothesis that there are rather definite geographical limits on the ability of multiunit firms to spread advertising costs.

Interviews with responsible food industry leaders disclosed that lobbying for or against proposed legislation affecting the food industry has become an accepted promotional policy as well as

a legitimate business cost. Trade associations of corporate, voluntary, and cooperative chains, and unaffiliated groups place great importance on maintaining a favorable political climate in Washington, D. C., and the various state capitals, and they maintain trade association representatives to perform such services. Lobbyists also attach great weight to administrative attitudes and interpretation of laws relating to the industry. Industry leaders maintain that the cost of regularly defending a company against various kinds of antitrust actions has become an unnecessarily heavy burden on retail grocery and food packing firms.

Internal Organization Policies

Forms of organization. The legal forms of business organization were discussed in the preceding chapter. Since the corporate form of business provides the only means of assuring continuity of the firm and limiting the liability of the owners to the amount of their investment, this form became the preferred type of organization as retail grocery firms became larger.

Purpose of internal organization. Organization is defined in various ways by different authorities in the field of management. Some consider it a *process*; others, a *relationship*. All agree that a precise definition is not possible without numerous qualifying assumptions. For this analysis, William R. Spriegel's (1960) statement is a usable working tool: "An organization is . . . the relationship between the various functions and factors. Within this relationship the process takes place as desired by administrative management." The relations between functions (services performed) and factors (resources used to perform services) may be changed by management through changing the flow of authority for decision making, varying the inputs of factors, using the factors (labor and capital) to perform the func-

tions in different ways, and/or changing the functions. Essentially, that is what is done when management realigns or reorganizes the structural relations among the factors, for the purpose of increasing its output of goods or services and increasing the net returns to the firm.

Centralized versus decentralized decision making. An effective internal organizational structure controls and utilizes the resources at its command in meeting its objectives. Decisions with important effects on all parts of an organization must be centralized so that all factors bearing upon them can be considered before reaching a conclusion. However, the costs of administration are often increased when this procedure is followed. Internal management control depends upon effective inventory control, accounting procedures, and the collection and dispersion of other types of information. The size of a system of management controls increases as the size and complexity of the firm increases, and unless ways are found to lower the costs of such controls they can become deterrents to a firm's growth. Some industries are doing this with the help of high-speed electronic computer systems. The food industry as yet has not made much progress in this direction but a large potential exists.

Decentralization of decision making is another method used to lower the administrative costs of expanding firms. This is a reasonable reaction to the increases in costs of collecting and disseminating information as firms grow in size and complexity. Many large retail food firms, including Atlantic and Pacific Tea Company, Kroger, and Safeway, have adopted this policy. Such decentralization is often oriented by commodity and region, particularly in procurement.

The decrease in concentration, observed in the case of the national chains, is contrary to the centralization of procurement taking place by means of the

affiliated buying groups. Apparently, some large chains have reached the point where the costs of centralization outweigh the benefits. On the other hand, some affiliated groups and small- and medium-sized chains are still operating under a condition of decreasing unit costs as volume increases.

Organizational policies regarding growth and expansion are closely related to and dependent on financial policies and the surrounding institutional framework. Only if sufficient capital or credit is available will expansion be possible. Institutional restrictions in the form of antitrust legislation frequently restrict expansion policies of large firms, but the Robinson-Patman Act appears to have encouraged vertical integration.

Expansion policies are usually centered around the desire to increase long-run profits and/or reduce risks based on assumed lower unit costs associated with volume buying and selling. They can be analyzed further by separating vertical and horizontal expansion. As already shown, horizontal expansion of stores was based on assumed lower unit costs of large-volume procurement and merchandising that are attainable in one establishment. The horizontal expansion of multistore firms centers around (1) a desire to utilize specified existing resources more completely, (2) a desire to reduce risk, and (3) an opportunity to develop new and profitable market areas. Vertical integration was encouraged by (1) a need to be assured of large quantities of given qualities of products, (2) an opportunity to invest profitably in certain processing industries, and (3) an assumed lower unit product cost when sources of supply are owned or controlled by the retail firm.

The methods of growth and expansion are policy matters. Some firms grow almost exclusively by mergers or outright purchase of facilities while others rely primarily upon construction of new facilities. Important determinants are the

objectives of management and the rates of growth desired. Some firms appear expansion-minded, while others are not.

Other factors that can affect the rate and methods of expansion are (1) the size of the barrier to entry into a particular market, (2) the need to acquire and keep management talent, (3) antitrust and other legal regulations, (4) the financial reverses of the firm, (5) the activities of financial promoters, (6) the rate of growth of the total food market, and (7) the development of new shopping centers.

Each of the seven factors appears to be important in some situations. The development of new shopping centers is becoming of significant importance in horizontal growth. In 1959, 47 per cent of all new supermarkets opened were in shopping centers. *Chain Store Age* (Kaylin, 1959) reported that 300 new stores were opened by food chains in shopping centers in 1957, 600 in 1958, and 900 were planned for 1959. These 1,800 new stores represent about half of the total number of grocery stores in operation in shopping centers. The influence of various types of financing on expansion will be considered in the next section.

Financial Policies

Sources of capital. Large amounts of capital are required for the operation and expansion of retail food firms. The average size of investment in a supermarket opened in 1958 was estimated at \$431,000, plus the cost of the parking lot and merchandise inventory. This was an increase of 29 per cent in three years (table 8, Appendix). One of today's supermarkets is a sizable commercial venture in comparison with previous corner grocery stores. Likewise, a chain of large supermarkets is "big business" and has most of the advantages and disadvantages that go with size.

Retail grocery firms have several sources of capital: (1) retained earnings, (2) sale of corporate stock, (3)

issue of bonds or debentures, (4) loans from private investors, (5) loans from financial institutions such as banks and insurance companies, (6) leasing agreements, and (7) extension of credit by suppliers. Stocks, bonds, and debentures are used by corporate-type firms only. This gives such firms certain advantages in obtaining capital in the organized money markets. It is obvious, however, that any such disadvantage of unincorporated firms arising solely from organizational form can be remedied by adopting the corporate form of organization. This access to organized money markets, which well-managed corporate chains usually possess, appears to be a significant advantage to expansion-minded firms. Probably an important share of the economies that accrue to large chain organizations arises from their ability to finance expansion at lower interest rates than small firms, and to time their entry into new markets.

Regardless of the size or form of organization of a prospective borrower, investors usually request the same information on a borrower's loan application. The questions concern (1) the firm's management record, which is a basis for appraising an applicant's past and potential earning capacity, and (2) the type of collateral or other security for a loan. Hence, the form of organization and size of a retail firm may be of considerable importance to investors in appraising risks.

Many retail grocery firms have expanded by means of retained earnings. Management and investors like this type of expansion because it expands management power and builds up stockholders' equity without subjecting the stockholder to income taxes on current distribution of earnings.

Expansion by using retained earnings

has been feasible during the last twenty years because profits in the grocery business have been comparatively favorable. Profits of the large grocery chains have compared well with the profits of food manufacturers and other manufacturing industries. Thirty-three large food chains averaged, after taxes, earnings of 15.4 per cent on stockholders' investments between 1948 and 1958. The 25 largest industrial firms in the nation earned 14.7 per cent, after taxes, on stockholders' equity for the years 1955-1957, compared with 12.8 per cent for the 20 largest steel companies and 15.2 per cent for the 33 food chains (Federal Trade Commission, 1960; Mitchell, 1959). It is standard practice for many corporate firms to distribute about 50 or 60 per cent of earnings to stockholders. The remainder is available for expansion or other uses that management deems necessary.

Leasing of land, buildings, and equipment is not technically a source of credit, but it is an alternative method of obtaining the use of capital or resources. Leasing buildings and land has become a common practice; 71 per cent of all new supermarkets operated in leased buildings in 1958 (table 8, Appendix). The leasing of equipment such as display cases and mechanical equipment is still rather uncommon, but it is becoming more important.

In 1957, 10 large food chains paid out \$140 million in rentals (Gant, 1959).¹⁹ Rental payments represented 1.11 per cent of total sales of these firms. These firms had an aggregate of only \$259 million in long-term debt. If the assets represented by rental payments were all financed by long-term debt, the outstanding debt would rise by \$1,400 million to a total of \$1,659 million, assuming a capitalization of 10 per cent.²⁰ If this \$1,400 million were added to

¹⁹ These payments include the rental of land, buildings, and equipment, but most rentals are believed to consist of only land and buildings.

²⁰ A 10 per cent capitalization assumes rental payments equal to 10 per cent of original asset cost, the average remaining length of lease to be fifteen years, and interest at 5.5 per cent.

existing assets, total assets of these firms would increase by 68 per cent. Long-term debt would rise from 18 to 59 per cent of total capitalization. Therefore, leasing represents an important method of financing by the food chains.

Open book credit extended by wholesale suppliers is another source of much of the working capital for merchandise inventory. Historically, grocery stores have relied heavily on wholesale suppliers for inventory credit. The annual stock turnover varies considerably by products but averages about 14 times per year for dry grocery products, 75 times for produce, and 171 times for baked goods. This means that if credit from suppliers is extended for about 2 days on baked goods and 30 days on grocery products, suppliers would carry the entire financing cost of inventory. In fact, fast-moving items such as baked goods and milk can be counted on for a surplus of financing if terms run as long as a week, which is not uncommon.

Credit terms are commonly offered by

full-line wholesalers. Cash on delivery is demanded on purchases from members of affiliated groups, thereby contributing to their low-margin operation. However, a lack of credit keeps down the number of independent grocers buying through groups. It also helps explain why such a small proportion of total purchases of members is made through their groups. It is estimated that an additional \$15,000 to \$20,000 in working capital per store would be needed by affiliated members if they were to purchase all of their merchandise through their group organizations.

Lenient credit terms decrease the amount of working capital required by retailers but increase the amount required by suppliers. Apparently any shift in the terms of credit is one indication of change in the relative bargaining positions of buyers and sellers. In a market where administered prices prevail, the terms of credit provide an opportunity to shade prices without affecting listed prices.

THE INSTITUTIONAL ENVIRONMENT

MERCHANDISING, ORGANIZATIONAL AND FINANCIAL policies concerning procurement, or any other decision variables are made within the constraints of a given institutional framework. They are frequently of primary importance in setting restraints upon the direction and rates of growth of the food industry, its operating characteristics, and the effects of this industry upon related industries. Three types of institutional forces are analyzed: (1) legal controls, regulations, and restrictions affecting the food industry, (2) the nature of the organization of the labor market facing this industry, and (3) the customs, mores, and accepted goals of consumers and retailers.

These institutional forces vary considerably in their effects upon procure-

ment policies, practices, and costs. Some set only broad restrictions on the type of marketing agencies, legislative regulations, and management policies. But others, such as antitrust laws, are quite specific in setting restraints on particular actions and operating procedures. Institutional forces can have a direct influence upon price and the cost structures of inputs and the prices of products. For example, labor unions may affect the price of labor; resale price maintenance laws may affect retail prices.

Legal Restrictions and Regulations

There are many different objectives of legislation, and, inevitably, some of them are conflicting. The Sherman and Clayton Antitrust Acts are aimed at in-

creasing the intensity of competition. Some of their amendments—for example, the Robinson-Patman and Miller-Tydings Acts—are aimed at restriction of competition. These amendments are concerned with the protection of competitors at the expense of restricting competition. The objective has been to increase the ability of the small independent entrepreneurs to compete with their more efficient competitors. A similar conflict in policy objectives exists with respect to agricultural legislation: efficient production is encouraged at the same time that inefficient producers are being subsidized.

Some regulations, such as the various health inspections, have other primary objectives, but they exert important influences on the nature of the structure and the policies and practices of various firms and industries. Other regulations are directed more specifically toward particular food processing industries, but they incidentally affect procurement practices of the retail food industry.

Antitrust laws. The maintenance of competition is based, largely, on the interpretation of four fundamental antitrust laws, namely: the Sherman Antitrust Act of 1890, the Clayton Antitrust Act of 1914, the Federal Trade Commission Act of 1914, and the Packers and Stockyard Act of 1921. The stated objectives of these laws are to outlaw "restraints of trade" and "unfair methods of competition." They were written in very general terms, particularly the Sherman Act. Therefore, court interpretations have significantly affected the legality of certain business policies and practices.

Some of the amendments to the basic antitrust laws are probably more important to the retail food industry than the original legislation, because several of them were initiated specifically to regulate the retail grocery business. When the original legislation was passed, a good deal of attention was given to regu-

lating the food processing industries; it was not until the 1930's that strong interest developed in control of the buying and selling practices of food chains. This interest led to the passage of many special state tax laws on chain stores, the Robinson-Patman Act in 1936, the "fair trade laws," and state "minimum markup" laws.

Antichain store taxes and "fair trade" laws. At one time, 29 states had antichain store tax laws designed to increase the overhead costs of multiunit store operation, and thereby make it uneconomical for them to operate in competition with local merchants. The laws applied to all multiunit chains, including dry goods, drug, and food. The purpose of the "fair trade" laws enacted by 45 states was to prevent retailers from selling branded products below the retail listed price prescribed by the wholesaler or manufacturer marketing a branded product. Since contracts were made between the retail handler and the wholesale supplier for a right to buy and sell the branded item, such contracts were enforceable. Retailers who failed to agree to such contracts could not buy the particular branded product from the wholesale supplier. State "minimum markup" laws were instituted to prevent retailers from selling any product for less than cost plus a given percentage markup. "Minimum markup" laws are on the statute books in 28 states, but little effort is made in most instances to compel compliance.

More than half the states that enacted antichain store taxes repealed their laws, and those that still have such legislation have no great enthusiasm for using their power of taxation in a wholly discriminatory manner. "Fair trade" laws remain on the statute books of many states; however, cooperative buying groups, discount houses, and nonfair-traded brands have forced most of the larger firms that supported resale price maintenance to abandon it. "Minimum markup" laws

have never been used to any great extent by states having such legislation. The basic difficulty in using such laws to curtail price cutting on food is that of finding the exact cost price to a retailer.

The Robinson-Patman Act. It appears to the authors that the Robinson-Patman Act, an amendment to Section 2 of the Clayton Act, has been a far more important factor in changing market structure and practices than the types of legislation discussed in the preceding paragraphs. Its purpose was to curtail the unfair buying advantages that chain stores were alleged to possess. It forbade any price discrimination by a seller to any of his buyers, except those which could be justified on the basis of cost differences in supplying different buyers. In addition, it outlawed all discounts for brokerage services performed by buyers, regardless of cost differentials, and all advertising and other allowances that were not made to all competing buyers on "proportionately equal" terms. It required that any differentials among buyers had to be explicitly shown. Moreover, the burden of proof of cost differentials was placed on the defendant in case of legal action.

The effects of the Robinson-Patman Act on the retail grocery industry have been rather extensive, but it has had only limited success in achieving its original purpose. Even though the Act was directed primarily at food stores, its application has been industry-wide. Chains have been able to side-step the law to some extent by integrating to their supply sources. Contractual arrangements with suppliers whereby the chain agreed to take the entire output of a given plant obviates any possible charge of discrimination among buyers. Selling private label merchandise packed according to a buyer's specifications minimizes charges of price discrimination. If all else fails, outright purchase or construction of suppliers' plants is possible. An increase in the number of all

three types of vertical integration actions has been observed in the food industry since passage of the Robinson-Patman Act.

Another method of circumventing the purpose of the Robinson-Patman Act has been intensified bargaining on terms of the sale other than price. The possibilities for shading price have already been examined with respect to cooperative advertising allowances and alterations in the terms of credit. The Federal Trade Commission has kept a close watch on advertising allowances and has indicated that suppliers' lack of proof of performance on the use of these allowances may be sufficient proof that they are merely price reductions in disguise. Other types of allowances offering the same opportunities include swell allowances, label allowances, freight allowances, and pickup allowances.

The Robinson-Patman Act apparently did not significantly lower the proportion of business done by the food chains or substantially affect their profit position. One reason might be the relative advantage that some chains have had over many independents owing to more efficient merchandising operations. Second, the chains have been able to circumvent the intent of the law by various methods of vertical integration. Third, the attitude toward administration of the law appears to have fluctuated a good deal; thus, legal delaying tactics were profitable.

The Robinson-Patman Act seems to have been effective in reducing the predatory and exclusionary tactics sometimes used by large chains in earlier years. For example, Atlantic and Pacific Tea Company in a consent decree signed in a United States district court in New York in 1954, agreed among other things not to run any of its divisions at an intentional loss, not to dictate to suppliers the prices at which they could sell to others, and not to accept any label or container allowances in excess of that offered to

other buyers. *The Wall Street Journal* of December 22, 1958, reported that in the view of some suppliers, Atlantic and Pacific Tea Company has been a changed company and it is living up to the spirit as well as the letter of the law.

Antitrust actions against food firms. It is paradoxical that efforts to enforce the antitrust laws have been quite vigorous in the case of the food industry, which appears to have a lower level of concentration and collusive activity than most manufacturing industries. *The Wall Street Journal* of May 5, 1960, reported that during 1959, for example, the Federal Trade Commission began more than 125 investigations of the food industry, of which 16 involved large food chains. One reason for this attitude toward the food industry is that it is relatively easy to detect a violation among food processors and distributors because of the large number of competing firms. A second reason is that the food industry is in close contact with large numbers of people, both as consumers and producers. Thus, actions of food firms and regulatory agencies of government are readily observed by large numbers of people. This appears to make the food industry a popular one for political debate and harassment. A third reason is that, although economic concentration is relatively low, the food industry is quite large in absolute terms. It contains a few firms that are very large and a great number of very small firms. The latter tend to emphasize any questionable actions of larger firms.

Apparently, the antitrust laws have had an influence in stimulating integration of retail food firms into wholesaling and processing operations. The horizontal growth (acquisition of more stores) of a few of the largest retail firms probably has been restricted by the threat of these antimonopoly laws. However, diseconomies of size of the large chains have probably been a greater restraining factor than fear of violating

antitrust legislation. The over-all effect of legal restraints on the horizontal growth among retail grocery firms has probably been slight, since most of the horizontal merger activity has taken place among medium- and small-sized chains, which usually have not been bothered by actions of the regulatory agencies.

The high costs both of cooperating with the many legislative and quasi-judicial committees probing the industry for illegal behavior and of fighting antitrust litigation have become burdensome to firms that are regularly under fire from Federal agencies. Even favorable rulings have proved costly because of the complexity of the legal struggle. As previously shown, large firms find it expedient to spend additional sizable sums for promotion and lobbying activities. These costs become part of the diseconomies of large-size firm operation.

Taxes

The total of business and income taxes on retail food firms increased from an average of 41 to 52 per cent of net earnings between 1948 and 1958. With tax rates at these levels, tax laws are of strategic importance in directing the operation and expansion policies of a firm. Whenever an opportunity for saving taxes is found, it is taken almost regardless of the effects upon procurement of supplies.

The growth methods of a firm are frequently dictated by the tax implications. For example, the carry-forward provision of losses makes a firm that has been losing money a prime candidate for merger. Continual losses soon make a firm worth more as a part of a profitable operation than it is as an operating entity. Also, an increase in allowable depreciation rates on fixtures and equipment in supermarkets in recent years has allowed owners to modernize equipment and redecorate stores more frequently. The Internal Revenue Depart-

ment in recent years has recognized that obsolescence plays a large part in depreciation and it has been more liberal in allowing a more rapid depreciation of buildings and equipment (Commercial Bulletin, 1960).

Regulation of Markets and Marketing

The regulation of markets and marketing practices is of three types: (1) sanitation and health programs designed to protect the interests of consumers, (2) trading practices established to protect buyers and sellers from unscrupulous traders, and (3) quality and grading regulations designed to promote orderly marketing. The objectives of all of these regulations have been to promote equitable and efficient market conditions, to aid mass buying and selling, and to reduce marketing costs.

Sanitation and health inspection. Ever since 1906, when Congress passed the Food and Drug Act and the Meat Inspection Act, the government has been concerned with policing food purity before it reaches consumers. The need for this regulation arises because the modern food distribution system does not allow the final consumer to exercise control over products in the production process.

The effects of these inspection programs upon procurement practices vary considerably by commodities because of the nature of the products and the scope of the enabling legislation. However, the inspection services have been designed not to interfere materially with the normal course of trade. Procurement practices have of necessity been altered to some extent to permit the inspection function to be performed. To the extent that these regulations have been effective in preventing unfit food from reaching consumers, the entire food industry has benefited by the favorable influence upon consumer confidence and demand for products.

Trading regulations. The purpose of trading regulations is to promote orderly and efficient marketing and to prevent unfair practices among traders in a given market by setting certain ground rules on trading practices and policing their observance. Legislation of this type includes the Perishable Agricultural Commodities Act and the regulations governing trading on the organized commodity exchanges.

These various regulations affect the precise nature of the procurement practices that traders are allowed to use in purchasing commodities. The permitted behavior varies with the type of product and nature of the market. In general, these regulations attempt to improve the efficiency of the markets for the various products without affecting the terms of trade. Only very general types of acceptable trading practices can be regulated in unorganized markets. The trend toward direct buying by corporate chains and affiliated groups has intensified the problem of adequate regulation and supervision. As a result there has been increased dependence on antitrust-type regulations governing legitimate market behavior rather than precise rules regulating specific procurement procedures.

Grading standards. Grade and quality standards have been devised to improve the performance of the market for farm products in all stages of the marketing channel. An accurate price-reporting system is dependent upon a uniform product that falls into precise standardized grades. Some commodities, such as grain, easily lend themselves to such a system whereas others, such as fruits and vegetables, do not. Most government grading standards have been developed and used on a cooperative or voluntary basis, except where they are required in organized trading markets or were required during wartime under the Office of Price Administration.

A growing use of federal standards and grades has affected food procure-

ment policies and practices of producers, processors, and retailers, particularly in the early stages of the marketing channel, in farm price reporting, and in organized futures markets. Technically, processed foods are potentially more homogeneous and easier to grade, but processors have preferred to differentiate them further and rely on private grades and brands to transmit quality information to consumers. This practice is consistent with the desire of merchandisers to sell differentiated products. With an expansion in private label and specification buying by retailers, there has been an increase in the use of federal grades, especially in the wholesale meat and poultry markets. Federal grades have frequently been used as a basis for more precise specifications within the food industry.

The economic effects of the increasing use of federal grades on beef were explored by Williams, Bowen, and Genovese (1959). They found that the use of United States grades has contributed to many basic changes in the structure of the wholesale-retail beef market. They also assert that federal grades have (1) intensified competition in the fresh beef wholesale market because of the descriptive language which is now more uniform, enabling buyers to expand the market in which they can compete for supplies without proportionately increasing buying costs; (2) contributed to an increase in pricing efficiency, which has been expressed by an increase in the accuracy, ease, and effectiveness of prices in reflecting value differences among various qualities of beef; (3) reduced the bargaining strength of the national packers relative to the chains, because of the replacement of a differentiated product by an undifferentiated one; (4) contributed to raising the level of demand for high quality products, or at least have aided consumers in their ability to express their desires for it; and (5) encouraged many retailers to

merchandise and promote the "choice" grade of beef.

It is apparent from the experience of federal grades on beef that grading is a function which the government can perform in improving the competitive operation and organization of markets for farm products.

Agricultural Policy Programs

Supply pressures. In spite of diversion programs and acreage controls, there has been an increase in the quantity of food products marketed. As already shown, the volume of domestic farm food products marketed increased by 27 per cent between 1947-1949 and 1958, while the United States civilian population increased by 18 per cent. Thus, food products marketed per capita increased by 7.5 per cent. Because of the inelasticity of demand for food, this expanded volume has generally resulted in a buyers' market at all levels of marketing, resulting in adverse effects on farmers which have shown up in the form of lower prices. Farm prices declined by 8.3 per cent between 1947-1949 and 1958 (Agricultural Outlook Charts, 1960). At the wholesale level, supply pressures also have favored buyers. This is revealed in lower prices, increasingly favorable credit and delivery terms, shifts in the cost of storage to the seller, and acceptance of buyer specifications. Implicit in this statement is the fact that if either the supply of food products decreases or the demand for them increases then the terms of trade will reverse and suppliers will again be in a stronger bargaining position, as happened during World War II.

Marketing orders. The primary purpose of marketing orders and agreements has been to raise producer incomes, recognizing the necessary restriction that an adequate supply must be produced to satisfy consumers' needs. Provisions to attain this objective usually include grade and quality control, volume

control, prorated marketing, advertising and other promotion, and research on marketing problems.

An effective organization of the market for certain commodities at the grower level, such as prevails under marketing orders and sometimes with the help of marketing cooperatives, can aid producers in obtaining higher prices and help wholesale buyers procure the kinds and quantities of products needed. In his study of marketing fresh fruits and vegetables, Folz (1958) found that chain buyers thought that producers would receive better prices and consumers better produce, with narrower middlemen margins, if terminal market operations and pricing could be eliminated entirely. However, this result is contingent on an effective organization of the market at the grower level. Without such organization, buyers are forced to buy either through terminal markets or from only those growers who are large enough individually to satisfy substantial proportions of a buyer's requirements.

The procurement practice of direct buying on specifications is being aided by marketing orders and is, at least potentially, to the mutual advantage of buyers and sellers. The grade and quality provisions of the orders can be adjusted to coincide with the needs of buyers, as dictated by consumer demands. Orderly marketing over time alleviates distressed sales and transportation, spoilage, and storage problems, and results in a more dependable supply of products. Short-term volume control and prorated shipments apparently are mutually beneficial to farmers, processors, and distributors, because of the inelasticity of demand for these products and the apparent value of trade confidence in a stable supply of product.

The effects of milk-marketing orders upon procurement practices of retailers and their market structure are the most obvious in the case of state orders like

California's, in which minimum wholesale and retail prices are set by the Bureau of Milk Stabilization. Prior to 1956, flat pricing to retailers was enforced with no volume discounts or any other discriminatory pricing allowed, regardless of differences in cost. This legislation had two major effects: it decreased the efficiency of the milk distribution system and it was responsible for "rather elaborate procedures by which wholesale customers become attached to particular milk distributors" (Clarke, 1951).

Since retailers paid the same for their milk, they had an incentive to carry a large number of brands to take advantage of any product differentiation that may have existed. This practice resulted in a decrease in the average size of each delivery. Packages per stop decreased from 89 to 57 and packages per route decreased from 2,498 to 2,108 between 1945 and 1950 in Los Angeles County, during which time the order was made effective (Clarke, 1951).

To obtain the benefits of any decreasing costs associated with volume delivered at one stop and to comply with the milk order, some large retailers apparently found it to their advantage to integrate backwards into dairy product processing and wholesaling. For example, between 1946 and 1950, the sales of milk-distributing firms owned by grocery firms in Los Angeles County increased by 24 per cent in spite of a 4 per cent decrease in total sales of milk sold through stores (Clarke, 1951). The Federal Trade Commission's recent report showed that integration of chains into dairy products manufacture was a common practice. Since 1956, changes in the California milk order have provided for a sliding price scale based on the quantity delivered, but a recent study revealed that, in Los Angeles, the existing scale is not sufficient to cover the differential costs of volume delivery (Forker and Clarke, 1960).

Collective Bargaining

As already shown, labor costs accounted for somewhat more than one-half of the gross margin of retail grocery firms in 1958 (table 12). Likewise, it has been shown that the price of labor has gone up faster than its productivity. Since collective bargaining has been an important factor in setting the conditions of employment in grocery stores (for example, wage rates and fringe benefits that make up labor costs), it must be reckoned with in any study of business structure and practice.

Unionization of labor has attained much greater relative strength in the retail food industry than in other retail trades. By 1955, between 25 and 30 per cent of all food store employees were union members, compared to 10 per cent of department store workers, and 7 per cent of the employees of all retail trades. Of the estimated total food store union membership of 280,000 in 1954, 150,000 belonged to the Retail Clerks, American Federation of Labor, and 120,000 belonged to Butchers, American Federation of Labor (Estey, 1955).

The rapidly rising labor costs associated with collective bargaining have encouraged the adoption of self-service stores, prepacking, and larger retail grocery stores, according to industry leaders. Management has substituted capital for labor and it is seeking further economies through labor specialization in procurement and merchandising operations. The fact that wages have been higher and unions stronger in California than the rest of the United States appears to have been a factor in the faster rate of capital substitution and labor specialization among California food retailers.

Customs, Mores, and Goals

Duddy and Revzan in *Marketing, An Institutional Approach* (1953), explained the importance of customs and

habits in conditioning market behavior in the following way:

Finally, one must not overlook the fact that much of economic behavior is based on *custom* and *habit*. Management is continually trying to break through this crust of custom, but to be successful in marketing operations, management must largely conform to customary modes of behavior on the part of consumers. Custom, moreover, continues to govern the practices of businessmen in their relations with each other. Every trade has its custom. Therefore, custom, as an important part of the social environment within which an institutional economy must work, becomes a determining factor in the coordination of market structures.

The trend toward family shopping seemingly increases the importance of impulse buying and hence the value of prime display and shelf space. This trend could influence the relative demands for various products from alternative suppliers.

The custom of weekend shopping exerts a powerful influence in food retailing. The *Super Valu Study* (Progressive Grocer, 1959) shows that 44 per cent of the week's customers shopped on Fridays and Saturdays, on which days 62 per cent of the week's sales were made. This distribution apparently has not shifted much in recent years. Food stores must be large enough to accommodate weekend peak traffic or they will lose customers. This skewed traffic flow means that fixed facilities are under-utilized most of the time. Nevertheless, the cost of increasing capacity to satisfy weekend requirements must be counter-balanced against the loss of customers due to overtaxing facilities. Thus, while an individual store may profit by expansion of facilities, the net result to the economy may be "overstoring" and a consequent increase in the total cost of retailing food.

The capacity of a store can be raised by increasing the variable inputs used in combination with the fixed facilities. This is normally accomplished by varying the labor input to coincide with the

traffic flow. But this practice is becoming increasingly difficult and expensive because of labor union objections to the use of part-time labor and because of union insistence on premium pay for irregular working hours. Thus the substitution of capital for labor (for example, modernized checkout counters) has become more feasible economically.

The skewed traffic flow has encouraged retailers to direct their advertising to weekend customers, when the marginal returns from advertising are greater. Since advertising of weekend specials further encourages customers to shop on weekends rather than during the week, this contributes to the industry's problem of capacity.

Locational advantages of certain store sites owe their value, in many cases, to the stability of customer loyalties and habitual shopping patterns. The effects of these advantages on the structure of the industry and the nature of the competition were analyzed in connection with the discussion of freedom of entry into the industry.

Other important customs and mores of consumers are regional or local in character and based upon nationality

and religious beliefs. Merchandising practices and product mix must conform to these localized demands. For example, the demand for kosher beef and lamb is centralized in the New York City and West Coast areas. This demand is one of the reasons for the large number of specialty meat shops in San Francisco and New York City. In this case procurement practices are directly affected because of the special requirements of the final product. Any changes that occur in the marketing channel for these products must conform to local demands.

Every trade also has its customs. This is particularly true in the case of food retailing. A large number of small independents regard their business as a way of life closely akin to the family farm philosophy; therefore, the firm often loses its original goal as a productive unit and functions as a means of self-employment for its owner. Thus, custom and tradition can become deeply engrained in merchandising and procurement practices. Many of these customs are reinforced by strong influences from the marketing agencies with vested interests in maintaining the status quo.

IMPLICATIONS FOR FOOD MARKETING SYSTEM, FARMERS AND CONSUMERS

THE BUYING POLICIES of retail grocery firms are evidently an outgrowth of other firm policies, such as their merchandising program, internal structure and organization, sales volume, number and location of retail outlets, and also the firm's ability to obtain fixed and operating capital. Since most firms operate under a policy of mass merchandising, volume buying becomes a necessity. The buying policy is a result, rather than a cause, of the merchandising program. Changes in buying policies, however, have important implications for retail

store customers, competing retail firms, wholesale suppliers, and farmers.

Adjusting Supply Requirements to Consumer Demands

Current food distribution methods have evolved to meet the changing food requirements of a growing population with increased purchasing power. Retail grocery stores have followed the population shift to urban and suburban areas, bringing perishables within easy access of consumers. When consumers have had a choice of stores, some run by

traditional merchandising methods and some by mass merchandising methods, they have chosen the large supermarkets and chains because of the greater number and variety of products as well as shopping conveniences and services. As a result, retailers using new, efficient merchandising methods have usually earned satisfactory returns on their investments, while those resisting change have found it difficult if not impossible to compete.

The search for lower unit costs has brought about changes in buying methods. Since the retailers need a stable source of uniform quality merchandise, they have been purchasing more goods on the basis of strict specifications as well as buying directly from farmers and processors. In addition, many large retailers have begun processing their own products as a way of controlling quality and reducing unit costs.

Impacts of the Food Procurement System

Changes in procurement methods have had different effects on customers, competitive retailers, wholesalers, processors, and producers. These varying effects have been, to some extent, the result of differential rates of adjustment to changing requirements. In many cases, laws have been set up to fight change rather than adjust to new requirements. This reaction is to be expected in a marketing system where institutional forces play an important role and where certain competitive adjustments penalize one segment of the system while aiding another segment, even though the over-all result is an improvement in marketing efficiency.

Customers' choice of mass merchandising system. As indicated by customer patronage, a deliberate choice has favored the chain of supermarkets or independent supermarkets purchasing through efficient affiliated buying groups over small independent grocery

stores buying through full-line wholesalers. Customers seem to prefer one-stop shopping in community shopping centers. Customers also have indicated their acceptance of standardized products and services by their willingness to shop in supermarkets, at a lower price, rather than in specialty shops catering to individualistic demands. In fact, their willingness to accept mass merchandising has led to scale economies of sufficient magnitude to justify the sale in supermarkets of large numbers of products previously reserved for specialty shops. This trend has been noted in stores of increasing size that stock increasing numbers of products. In turn, this customer practice has stimulated demand for specialty products from suppliers and increased competition among suppliers of alternative products.

Customers have indicated their acceptance of certain private label merchandise and rejected others by their purchases. This has encouraged the trend toward specification purchasing on the basis of contracts and a vertical integration of some retail firms into processing. However, the choice between the two methods of procurement is dependent upon other considerations.

Competitive adjustments by retail firms. Retail food firms have probably adjusted to changing requirements of consumers and competitors more rapidly than have other marketing firms, as evidenced by their comparatively rapid structural changes and their comparatively favorable profit rates. As a result, the changes in structure and procurement practices that were observed have focused attention on these firms.

The procurement and other advantages of large-sized stores over their small competitors, whether owned independently or by chains, is leading to the displacement of small stores by larger ones. This trend is facilitated by population pressures stimulating growth in total volume, the development of shopping

centers, and consumer demands for an increased number and variety of products from which to choose their purchases. This trend has continued to the point where, by January, 1960, the *Progressive Grocer* estimated that supermarkets which accounted for only 11 per cent of the total number of grocery stores accounted for 69 per cent of all grocery stores sales.

The development of voluntary and co-operative buying groups is the best example of competitive adaptation to efficient procurement methods. Independent retailers purchasing through general-line wholesalers usually have been unable to purchase supplies at prices competitive with those paid by chains. Therefore, competition is causing many independent retailers either to go out of business or to join affiliated buying groups. By purchasing cooperatively or through voluntary groups, independent grocers and small chains have achieved many of the lower unit costs in procurement that the large chains possess. The elimination of personal selling by salesmen who called at retail stores appears to be a source of added efficiency in procurement. Affiliated groups are not vertically integrated to the same extent as chains. However, this disadvantage is at least partially counterbalanced by the advantages of local owner operation of stores and lower overhead costs of the affiliated groups' central organizations. Despite the procurement advantages from group buying, some retail stores are too small for economical operation. This disadvantage cannot be overcome except by increasing store size, which may not be feasible.

The rapid growth of affiliated groups in recent years attests to their success in competing with the chains. At current rates, the time will soon arrive when nearly all small retail grocers will be affiliated with a buying group of some sort. These affiliated groups have concentrated on horizontal growth in the

past but when they have had sufficient time to consolidate sales gains and improve their financial position, they are likely to move into vertical integration either by ownership or contractual agreements, thereby narrowing further the current procurement advantage of the chains.

Between 1935 and 1948 the share of total grocery sales made by chains had declined somewhat for the United States as a whole, although it had increased slightly in California. For the following decade, it is estimated that grocery chains in California having 2-10 stores each increased their share of total grocery sales from 11.6 per cent in 1948 to 17.1 per cent in 1958, compared with 6.8 and 9.0 per cent in the United States (table 7). The sales of the chains in California with 11 stores or more increased from 32.9 per cent of total grocery sales in 1948 to 39.9 per cent in 1958, against 34.4 and 44.0 per cent for the United States. This rise was due to an increase in the share of grocery stores operated by chains as well as an increase in sales size of these stores.

Horizontal growth of the grocery chains has been the most rapid among the medium- and small-sized firms. The primary method of horizontal growth has been by internal means: replacement of small stores by large supermarkets and the addition of newly built stores, largely in shopping centers. Growth by merger has been secondary. Mergers have been dramatized because they result in more noticeable changes in firm organization and because they have been centered in relatively few firms. Vertical integration of grocery chains appears to be increasing at only about the same rate as the growth of the total food business; thus, no increase in concentration of ownership of the food business has occurred by this method. However, vertical integration is concentrated in medium-sized chains which have been rapidly expanding horizontally. As a result, many

regional chains have grown substantially in recent years, particularly in California.

As a result of the rapid increase in volume of purchases through affiliated groups and the increase in number and size of regional and small chains, purchases by retailers are becoming concentrated into fewer and stronger hands. However, as a whole, retail buyer concentration is still less highly concentrated than are the suppliers from whom they buy.²¹ The retail buyer concentration also is low compared with most manufacturing industries. There is some evidence suggesting that retail buyer concentration of food retailers has stimulated rather than restricted competition among retailers in supplier markets. The large national chains are no longer alone in large buying power but must now compete on more equal terms with the affiliated groups and the strong regional chains. This competition has cost some of the large national chains a part of their previous share of the nation's total food business. Several chains have had to make significant adjustments in their organization and operating methods in order to meet their new competition.

Effects upon wholesale suppliers and supply requirements. In the years since World War II there has been constant pressure of excess supply of food products upon the demand for these products. This pressure has usually meant a buyers' market for food at all stages of the food distribution system. Such a market has encouraged processors and wholesale dealers to accept lower prices and to adapt their marketing procedures and organizations to the changing supply requirements of retailers.

Direct marketing of products from processors to retailers bypasses conventional wholesalers. Nevertheless, the

wholesaling functions of collection, transportation, and dispersion are not eliminated. These functions are incorporated into retail firms, which in many cases are large enough to purchase in quantities similar to those of conventional wholesalers. This first step in vertical integration of retailers often results in certain cost economies by reducing the number of ownership transfers and aiding retailers in control of product quality. Theoretically perfect markets would allow buyers to purchase the desired quantities and qualities of supplies in central markets with no fear of losing sources of supply and at prices comparable with those obtained in direct purchasing. Therefore, this trend can be viewed as a correction of imperfections in the marketing system. It is also probable that direct buying has increased competition for supplies, and possibly improved the terms of trade for many suppliers.

Large-volume wholesale transactions often result in lower unit costs to both buyers and sellers. To realize any economies of volume and to avoid legal complications, many retail firms have integrated back into processing or made exclusive supplier contracts. The mere ability to integrate vertically back into processing has the effect of increasing the number of alternative sources of merchandise open to retail stores.

Purchasing on the basis of price and specifications and selling on the basis of private labels weakens the advantage that suppliers previously had in selling differentiated products. As a result, price competition is intensified in the wholesale market. This less favorable position of processors should increase over-all marketing efficiency unless retailers are able to gain the advantage through the use of private labels. Price discounts commonly available on retailer private

²¹ In 1954 the 20 largest grocery retailers accounted for just under 32 per cent of all grocery store purchases. But in 47 of the 49 grocery manufacturing industries, the 20 largest firms accounted for more than 32 per cent of their industry's sales; in 29 of these industries, the 20 largest firms accounted for more than 70 per cent of their industry's sales.

labels indicate that at least a part of the benefits of this increased competition is accruing to consumers and producers. But, if consumer acceptance of these private brands increases sufficiently, then retailers should be in a position to raise their prices on their own brands.

Wholesale suppliers have increased their advertising expenditures and added new products in an attempt to hold and extend consumer acceptance of their differentiated products. However, they appear to be fighting a losing battle against large-volume retailers, who are in a position to control the allocation of their shelf space among alternative brands and products. This appears particularly true in view of the acceptance by consumers of private-label goods at a competitive price.

Impact on Farmers

It has been shown that the practices followed in the procurement of supplies by retail grocery firms follow from the nature of their supply requirements and the desire by retailers to perform the procurement function more efficiently. The wholesale market for food supplies is composed of the interaction of derived and anticipated demand, which reflects consumer desires, and existing supply, which reflects the production potential of producers. Incomes of producers are a reflection of this wholesale market. The inelastic demand for farm products, coupled with the pressure of rapidly increasing quantities of output, has resulted in reduced real incomes to farmers in the last ten years. The per capita decline of 2 per cent in net farm income from farm sources between 1948 and 1958 occurred at a time when the prices paid by farmers were rising (U. S. Department of Agriculture, 1960). If incomes received by farmers from nonfarm sources were added to the net income from farm sources, the total would amount to an 8 per cent increase in total per capita net income during the ten-year period,

compared with a 35 per cent rise for the nonfarm population.

In spite of what is basically a supply-demand problem, the marketing system and procurement practices of retailers in particular have received a large share of the blame for the relatively low incomes received by farmers. The marketing system has been able to operate without any real concern about shortages of products and has been able to purchase farm products at favorable prices. Because of these supply conditions, the income elasticities for retailer services, and the institutional restrictions on price competition, retailers have shifted their competitive efforts toward increasing services and away from reducing prices in an attempt to attract customers. As a result, efficiencies in merchandising and procurement have not usually been used to reduce marketing margins between wholesalers and retail customers but rather to increase customer services.

The changes in organization and methods of procurement of merchandise made by the food marketing system have encouraged many compensating adjustments by farmers. These adjustments have sometimes, but certainly not always, been to their advantage. Some of the policies and practices of retailers that have induced adjustments by farmers include: (1) the increase in number and variety of products offered by retailers; (2) allocation of shelf and display space among products; (3) advertisements and price "specials" on certain products; (4) policies to emphasize certain kinds or grades of products, such as "U. S. Choice" grade beef; and (5) policies of the firm regarding a choice of geographical supply areas. Many of these changes affect the quantities demanded by consumers of particular products, usually at the expense of competing products. These shifts in demand among products require compensating shifts in production of the raw products to avoid gluts and scarcity of products at the wholesale level.

Contractual arrangements with broiler and fruit and vegetable processors are examples of one method of speeding adjustment by farmers. They enable the processor-buyer to make long-term commitments on supply requirements and to exercise more control over quality and methods of production. In turn, a farmer is assured a market outlet for his products at a prearranged price and quantity. These contracts can be mutually beneficial when entered into freely on the basis of the existence of alternative market outlets and supply of product and when market information is equally available to both parties. Farmers lose nothing by agreeing to certain product specifications such as timeliness of planting crops, selection of varieties, and certain other production practices as long as decreases in yield or additional costs are compensated for by price increases.

Direct selling to retail grocery chains is rather common for certain commodities that require little processing. In such cases, buyers favor large volume orders to minimize transaction costs per unit and to assure stable sources of supply. Obviously, this method of selling favors large operations. Nevertheless, small producers of some commodities can realize similar economies if they band together and negotiate sales collectively and if they are willing to adhere to the same requirements regarding quality of products and specifications used in production.

Cooperative marketing often seems to be particularly adaptable to the sale of specialty crops for which production specifications are relatively important to processors or retailers. Standardization of production and volume negotiations are functions that cooperatives can perform effectively in improving marketing information and efficiency. Furthermore, it is a form of organization by which farmers operating family-sized farms may be able to adjust their production and marketing operations in accordance with changing requirements of retail firms and consumers and retain any efficiencies inherent in owner-operated firms.

State or federal marketing orders covering commodities being marketed cooperatively may assist cooperatives in standardizing product specifications, minimizing membership problems, and obtaining useful market information. However, marketing orders may also be used to implement policies of supply restriction and volume control that are aimed at obtaining monopolistic price advantages. These provisions are of doubtful value to producers unless there is a restriction on new producers entering the market. Provisions that aid producers in orderly marketing of their products, and producing, grading, and sorting their produce according to supply requirements of buyers, would seem to be of greater value.

APPENDIX TABLES

Appendix Table 1. Population of United States, California, and Selected Counties of California, as of July 1, 1929-1958 (Thousands)

Year	United States	California (civilian population)	California as per cent of United States	Selected counties, California*				
				Los Angeles	Orange	San Francisco	San Mateo	Tulare
1929.....	121,770	5,531	4.5	2,081	112	620	72	77
1930.....	122,923	5,711	4.6	2,208	119	634	77	77
1931.....	123,886	5,824	4.7	2,279	120	632	83	77
1932.....	124,694	5,894	4.7	2,336	123	643	88	77
1933.....	125,436	5,963	4.7	2,309	119	648	90	75
1934.....	126,228	6,060	4.8	2,381	119	644	92	75
1935.....	127,099	6,175	4.9	2,390	117	638	93	78
1936.....	127,879	6,341	5.0	2,454	121	628	94	81
1937.....	128,639	6,528	5.1	2,609	126	642	99	91
1938.....	129,635	6,656	5.1	2,719	130	643	104	98
1939.....	130,683	6,785	5.2	2,738	131	627	105	103
1940.....	131,658	6,899	5.2	2,813	132	637	114	107
1941.....	131,595	7,049	5.4	2,924	139	644	122	108
1942.....	130,942	7,297	5.6	3,122	152	694	136	110
1943.....	127,499	7,570	5.9	3,429	169	764	153	115
1944.....	126,708	8,083	6.4	3,584	176	756	160	124
1945.....	127,573	8,523	6.7	3,704	181	779	167	135
1946.....	138,385	9,298	6.7	3,772	186	770	173	142
1947.....	142,566	9,672	6.8	3,849	194	762	184	144
1948.....	145,168	9,895	6.8	3,927	200	765	200	145
1949.....	147,578	10,161	6.9	4,054	205	772	219	146
1950.....	150,202	10,438	6.9	4,152	216	775	236	149
1951.....	151,082	10,681	7.1	4,290	239	777	251	144
1952.....	153,366	11,299	7.4	4,482	256	778	265	144
1953.....	156,046	11,748	7.5	4,766	274	796	295	140
1954.....	159,086	12,254	7.7	5,016	303	798	316	139
1955.....	162,306	12,699	7.8	5,180	351	789	337	144
1956.....	165,341	13,260	8.0	5,388	430	783	358	146
1957.....	168,368	13,869	8.2	5,601	521	777	379	148
1958.....	171,420	14,432	8.4	5,790	596	788	399	150
1959.....	174,566	14,960	8.6	5,935	670	791	419	151
PER CENT INCREASE, 1929-1959								
	43	170	91	185	498	28	482	96

* Counties: 1929 and 1931-1939 are January 1 data; 1930 is April 1 data.

SOURCES:

United States: U. S. Department of Commerce, *Statistical Abstract of the U. S., 1959* (80th annual ed.; Washington: Govt. Print. Off., 1959), p. 5 (86th Cong., 1st sess.).
California: Senate Fact-Finding Committee on Commerce and Economic Development, *California Statistical Abstract*, Supplement to First Partial Report (Sacramento: State Print. Off., 1958), pp. 176 and 182.
Counties: 1929: California Taxpayers' Association, *Tax Digest* (Los Angeles; 750 Pacific Electric Bldg., Feb., 1934), p. 61; 1930-1939: California State Chamber of Commerce, *Intercensal Population Estimates—California Counties* (San Francisco: 350 Bush, 1941), p. 1 (Economic Survey Series, 1940-1941, Report No. 6); 1940-1949: *idem.*, *Population of California Counties Between 1940 and 1950 Censuses as of Each July 1st* (San Francisco: 350 Bush, 1953), pp. 1-2; 1950-1952: *idem.*, *Estimated Total Resident Population by California Counties and Regions—1950-1953* (San Francisco: 350 Bush, 1953), p. 1 (Economic Survey Series, No. 2, 1953-1954); 1953-1955: *idem.*, *Estimated Total Resident Population by California Counties and Regions* (San Francisco: 350 Bush, 1956), p. 1 (Economic Survey Series, No. 2, 1956-1957); 1956-1958: *idem.*, *Estimated Total Resident Population by California Counties and Regions, 1950-1958* (San Francisco: 350 Bush, 1958), p. 1 (Economic Survey Series, No. 12, 1958-1959).

Appendix Table 2. California Income, 1929-1958

Year	Personal income	Disposable income	United States		Disposable income per capita	Deflated disposable income per capita	
			Retail Food Price Index	Consumer Price Index		col. 5 + col. 3	col. 5 + col. 4
	million dollars		1947-1949 = 100		5			6	7
	1	2	3	4			
1929	5,502	5,349	65.6	73.3	\$ 967	\$1,474	\$1,319
1930	5,079	4,975	62.4	71.4	871	1,396	1,220
1931	4,347	4,307	51.4	65.0	740	1,440	1,138
1932	3,381	3,325	42.8	58.4	564	1,318	966
1933	3,227	3,174	41.6	55.3	532	1,279	962
1934	3,590	3,530	46.4	57.2	582	1,254	1,017
1935	4,020	3,952	49.7	58.7	640	1,288	1,090
1936	4,817	4,733	50.1	59.3	746	1,489	1,258
1937	5,132	5,005	52.1	61.4	767	1,472	1,249
1938	5,088	4,920	48.4	60.3	739	1,527	1,226
1939	5,257	5,094	47.1	59.4	751	1,594	1,264
1940	5,839	5,649	47.8	59.9	819	1,713	1,367
1941	7,331	7,100	52.2	62.9	1,007	1,929	1,601
1942	10,010	9,566	61.3	69.7	1,311	2,139	1,881
1943	13,281	12,486	68.3	74.0	1,649	2,414	2,228
1944	14,653	12,405	67.4	75.2	1,535	2,277	2,041
1945	15,194	12,842	68.9	76.9	1,507	2,187	1,960
1946	16,084	14,153	79.0	83.4	1,522	1,927	1,825
1947	16,637	14,401	95.9	95.5	1,489	1,553	1,559
1948	17,610	15,384	104.1	102.8	1,555	1,494	1,513
1949	17,835	15,868	100.0	101.8	1,562	1,562	1,534
1950	19,627	17,615	101.2	102.8	1,688	1,668	1,642
1951	22,726	20,186	112.6	111.0	1,890	1,679	1,703
1952	25,089	21,793	114.6	113.5	1,929	1,683	1,700
1953	26,642	23,046	112.8	114.4	1,962	1,739	1,715
1954	27,432	23,635	112.6	114.8	1,929	1,713	1,680
1955	30,224	26,367	110.9	114.5	2,076	1,872	1,813
1956	33,157	23,743	111.7	116.2	2,168	1,941	1,866
1957	35,131	30,189	115.4	120.2	\$2,177	\$1,886	\$1,811
1958	36,692	*	120.3	123.5

PER CENT INCREASE, 1929-1957

539	464	76	64	125	28	37
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* Blanks indicate data not available.

SOURCES:

Column 1: U. S. Department of Commerce, *U. S. Income and Output*, A Supplement to the Survey of Current Business (Washington: Govt. Print. Off., 1958), p. 156.

Column 2: The years 1929, 1940, 1946, 1950, 1953 and 1955 are from U. S. Department of Commerce, *U. S. Income and Output*, loc. cit., p. 160. The remaining years are estimates derived from personal income minus California state personal income taxes and federal internal revenue collections of individual income and employee taxes in California. The latter two are found in the Senate Fact-Finding Committee on Commerce and Economic Development, *California Statistical Abstract*, Supplement to First Partial Report (Sacramento: State Print. Off., 1958), pp. 176 and 182.

Columns 3 and 4: 1929-1955: Joint Committee on Economic Report and Bureau of the Budget, *Economic Indicators, 1955 Historical and Descriptive Supplement* (Washington: Govt. Print. Off., 1958), p. 48 (84th Cong., 1st sess.); 1956-1958: Council of Economic Advisors, *Economic Indicators* (Washington: Govt. Print. Off., Mar., 1960), p. 23.

Column 5: Column 2 divided by the civilian population of California, Appendix, table 1.

**Appendix Table 3. Total Cost of Marketing Farm Products
by Cost Components, 1947-1958***

Year	Labor	Rail and truck transportation	Corporate profits		Other costs†	Total marketing bill
			Before taxes	After taxes		
1947.....	\$ 92	\$ 91	\$107	\$125	\$ 89	\$ 92
1948.....	102	100	93	100	102	102
1949.....	107	105	93	88	107	106
1950.....	112	118	114	113	93	106
1951.....	120	118	93	75	117	117
1952.....	127	136	100	75	124	126
1953.....	135	145	107	88	123	130
1954.....	142	154	107	88	125	135
1955.....	146	145	129	113	139	143
1956.....	154	159	129	113	148	151
1957.....	160	164	136	113	156	158
1958†.....	\$165	\$182	\$150	\$125	\$158	\$164

* Index numbers (1947-1949 = 100). Computed from figures in hundreds of millions of dollars.

† Includes costs such as fuel, electric power, containers, packaging materials, air and water transport, interest on borrowed capital, taxes other than those on income and noncorporate profits.

‡ Preliminary.

SOURCE: Computed from U. S. Department of Agriculture, *Agricultural Outlook Charts, 1960* (Washington: Govt. Print. Off., 1959), table 9, p. 51.

**Appendix Table 4. Prices Per Unit of Inputs Used in Marketing
Farm Products, Selected Years, 1929-1958***

Year	Hourly earnings			Railroad freight rates for farm products	Prices of other inputs†
	All manu- facturing	All food marketing employees‡	All retail trade		
	1	2	3	4	5
1929.....	\$ 43	\$	...	\$ 80	...
1930.....	42	...	...	80	...
1931.....	39	...	...	78	...
1932.....	34	\$ 42	...	78	...
1933.....	33	39	...	77	...
1934.....	40	42	...	75	...
1935.....	41	43	...	74	...
1936.....	42	42	...	73	...
1937.....	47	45	...	73	...
1938.....	47	46	...	77	...
1939.....	48	46	\$ 50	77	...
1940.....	50	47	51	76	...
1941.....	55	51	54	77	...
1942.....	64	57	58	77	...
1943.....	72	60	63	76	...
1944.....	77	65	68	76	...
1945.....	77	70	73	76	...
1946.....	82	81	83	77	...
1947.....	93	93	94	88	\$ 93
1948.....	102	99	101	103	102
1949.....	105	108	105	109	105
1950.....	110	112	109	112	108
1951.....	120	119	117	114	119
1952.....	126	124	122	122	120
1953.....	133	132	130	125	122
1954.....	136	138	135	125	124
1955.....	141	142	139	124	128
1956.....	149	149	146	129	136
1957.....	156	158	152	136	141
1958.....	\$160	\$165	\$158	\$142	\$144

* Index numbers (1947-1949 = 100).

† Average hourly earnings in food processing, wholesale and retail trades.

‡ Fuel and power, packaging materials and containers, machinery, construction, and so forth.

§ Blanks indicate data not available.

SOURCES:

Columns 1 and 3: 1929-1954: Computed from Joint Committee on Economic Report and Bureau of the Budget, *Economic Indicators, 1955 Historical and Descriptive Supplement* (Washington: Govt. Print. Off., 1958), p. 29 (84th Cong., 1st Sess.); 1958: computed from Council of Economic Advisors, *Economic Indicators* (Washington: Govt. Print. Off., Mar., 1960), p. 15.

Column 2: U. S. Department of Agriculture, *The Marketing and Transportation Situation* (Washington: Govt. Print. Off., April, 1960), p. 23.

Columns 4 and 5: 1929-1944: U. S. Department of Agriculture, *Farm-Retail Spreads for Food Products* (Washington: Govt. Print. Off., Nov., 1957), p. 5; 1954 and 1958: U. S. Department of Agriculture, *Agricultural Outlook Charts, 1959* (Washington: Govt. Print. Off., 1958), table 29, p. 68.

Appendix Table 5. Grocery Stores, Sales, Payroll, Employees, and Proprietors, United States and California, Census Years, 1929-1958

Item	United States	California	
	<i>number</i>	<i>number</i>	<i>per cent of total United States</i>
Grocery stores			
1929.....	307,425	14,404	4.7
1933.....	303,910	13,742	4.5
1935.....	354,971	16,238	4.6
1939.....	387,337	17,140	4.4
1948.....	377,939	17,090	4.5
1948*.....	350,754	16,824	4.8
1954.....	279,440	14,481	5.2
1958†.....	251,664	13,374	5.3
Employees			
1929.....	443,628	25,488	5.7
1933.....	454,287	24,306	5.4
1935.....	515,747	29,200	5.7
1939.....	540,002	32,885	6.1
1948†.....	686,256	52,801	7.7
1954†.....	811,018	68,533	8.4
1958†.....	962,648	81,884	8.5
Active proprietors of unincorporated business			
1929.....	285,277	14,085	4.9
1933.....	304,097	14,072	4.6
1935.....	318,736	15,065	4.7
1939.....	351,981	14,085	4.0
1948§.....	380,492	19,043	5.0
1954.....	298,422	16,674	5.6
1958†.....	265,232	15,023	5.7
Sales			
	<i>million dollars</i>	<i>million dollars</i>	
1929.....	7,353	439	6.0
1933.....	5,004	301	6.0
1935.....	6,352	409	6.4
1939.....	7,722	577	7.5
1948.....	24,770	2,227	9.0
1948*.....	24,730	2,226	9.0
1954.....	34,421	3,292	9.6
1958†.....	43,217	4,430	10.3
Payroll			
	<i>thousand dollars</i>	<i>thousand dollars</i>	
1929.....	437,703	26,673	6.1
1933.....	366,764	22,100	6.0
1935.....	429,808	26,791	6.2
1939.....	464,803	35,925	7.7
1948§.....	1,258,215	132,366	10.5
1954.....	2,035,136	236,131	11.6
1958†.....	2,618,193	327,403	12.5

* The number of establishments and total sales for 1948 are adjusted on the basis of the 1954 definition of an establishment; of the establishments having no paid employees, only those that had a minimum of \$2,500 gross sales were included.

† Published data include delicatessens so estimates of delicatessens based on the 1954 *Census of Business* were subtracted.

‡ Work week ended nearest November 15.

§ November.

SOURCE: U. S. Bureau of the Census. *U. S. Census of Business: Retail Trade* (Washington: Govt. Print. Off., 1929-1958); see table 3, source column 1.

Appendix Table 6. Grocery Firms and Stores in California, by Size of Firm, 1948-1958*

Year†	Total		One store firms		2-3 stores		4-9 stores		10 stores		11-15 stores		16-25 stores	
	Firms	Stores	Firms	Stores	Firms	Stores	Firms	Stores	Firms	Stores	Firms	Stores	Firms	Stores
1948.....	15,216	16,824	15,011	280	113	355	67	355	2	20	5	63	5	99
1949.....	15,176	16,739	14,963	301	124	336	64	336	4	40	2	25	8	159
1950†.....	.....	16,670	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1951.....	14,651	16,325	14,395	370	155	367	72	367	3	30	4	49	8	154
1952.....	14,120	15,700	13,869	332	164	346	63	346	2	20	4	52	3	63
1953.....	13,373	14,988	13,098	420	181	384	70	384	2	20	5	66	2	45
1954.....	12,810	14,481	12,499	506	219	367	68	367	2	20	7	86	3	68
1955.....	12,098	13,943	11,724	638	272	372	70	372	6	60	6	75	4	78
1956.....	11,538	13,362	11,165	621	271	353	68	353	8	80	7	85	4	75
1957.....	10,826	12,696	10,477	555	246	347	66	347	4	40	11	132	6	125
1958.....	10,158	12,090	9,802	568	255	358	68	358	5	50	9	118	5	106

PER CENT CHANGE, 1948-1958													
	-33	-28	-35	126	103	1	150	150	80	87	0	7	

Year†	26-50 stores		51-99 stores		100-399 stores		400 stores and over		10 stores and over		2 stores and over	
	Firms	Stores	Firms	Stores	Firms	Stores	Firms	Stores	Firms	Stores	Firms	Stores
1948.....	8	259	0	0	1	100	1	637	22	1,178	202	1,813
1949.....	6	210	0	0	1	100	1	605	22	1,139	210	1,776
1950†.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1951.....	8	262	1	58	1	100	1	540	26	1,193	253	1,930
1952.....	9	290	1	53	1	101	1	524	21	1,103	248	1,831
1953.....	9	300	1	55	1	101	1	499	21	1,086	272	1,890
1954.....	9	295	1	56	1	100	1	484	24	1,109	311	1,982
1955.....	11	371	0	0	1	103	1	472	29	1,159	371	2,169
1956.....	9	319	1	98	1	103	1	463	31	1,223	370	2,197
1957.....	9	320	2	143	1	104	1	453	34	1,317	346	2,219
1958.....	9	329	3	212	1	100	1	450	33	1,365	356	2,291

PER CENT CHANGE, 1948-1958													
	12	27	..	...	0	0	0	-29	50	16	76	26	

* Includes only stores in the State owned by firms in the State, except A & P included.

† Backdated one year when dated December or January.

‡ Data not available.

SOURCES: Compiled from table 8 and *Directory of Supermarket and Grocery Chains* (New York: Business Guides, Inc., 2 Park Ave., annual issues, 1948-1959).

**Appendix Table 7. Grocery Chain Firms and Stores,
United States, by Size of Chain, 1948-1958**

Year	Total		One store firms	2-3 stores		4-9 stores		10 stores		11-15 stores	
	Firms	Stores		Firms	Stores	Firms	Stores	Firms	Stores	Firms	Stores
1948.....	322,856	350,754	320,629	1,412	3,342	601	3,189	29	290	66	845
1949.....	.....	.....	.....	1,551	3,650	572	3,020	32	320	68	868
1950.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1951.....	.....	.....	.....	1,890	4,387	592	3,068	28	280	260*	20,844*
1952.....	.....	.....	.....	2,013	4,654	587	3,040	30	300	65	836
1953.....	.....	.....	.....	2,234	5,122	592	3,109	26	260	66	843
1954.....	255,004	279,440	251,840	2,301	5,235	587	3,033	26	260	71	895
1955.....	.....	.....	.....	2,464	5,560	598	3,116	88†	1,052†	88†	1,052†
1956.....	.....	.....	.....	2,508	5,652	568	2,942	87†	1,018†	87†	1,018†
1957.....	.....	.....	.....	2,335	5,207	543	2,848	24	240	64	803
1958.....	227,448	251,664	224,277	2,381	5,288	542	2,832

PER CENT CHANGE, 1948-1958

.....	-30	-28	-30	68	58	-10	-11
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STORES PER FIRM

Year	16-25 stores		26 stores and over		10 stores and over		2 stores and over	
	Firms	Stores	Firms	Stores	Firms	Stores	Firms	Stores
1948.....	184‡	22,422‡	184‡	22,422‡	279	23,557	2,227	30,125
1949.....	190‡	21,511‡	190‡	21,511‡	290	22,699	2,366	28,811
1950.....	.....	.....	.....	.....	.....	.....	.....	.....
1951.....	260*	20,844*	260*	20,844*	288	21,124	2,770	28,579
1952.....	76	1,484	108	17,564	279	20,184	2,879	27,878
1953.....	71	3,378	112	17,279	275	19,129	3,101	27,360
1954.....	70	1,382	108	16,795	276	19,332	3,164	27,600
1955.....	65	1,296	103	16,703	256	19,051	3,318	27,727
1956.....	62	1,215	106	16,774	255	19,007	3,331	27,601
1957.....	58	1,153	101	16,848	247	19,044	3,125	27,099
1958.....	248	19,267	3,171	27,387

PER CENT CHANGE, 1948-1958

.....	-11	-18	42	-9
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* Total of 11-15, 16-25 and 26-and-over stores.

† Total of 10 and 11-15 stores.

‡ Total of 16-25 and 26-and-over stores.

Data for 1948 include 50 meat markets; 1949 data include 65 meat markets, except in final column.

SOURCE: *Directory of Supermarkets and Grocery Chains*, annual issues, 1948-1959.

Appendix Table 8. Facts About New Supermarkets, 1955-1958*

Year super-markets opened	Number reported	Display case		Store size		Over-all investment†		Total investment‡	Stores leased	Rental expense	Stores in new shopping centers
		Meat	Frozen food	Total area	Selling area	Total area	Main floor				
	number	lineal feet	square feet	square feet		dollars per square foot		thousand dollars	per cent	per cent of sales	per cent
1955....	141	80	78	18,000	‡	18.60	‡	335	84	‡	43
1956....	156	90	77	21,200	11,700	18.61	23.80	395	81	‡	47
1957....	147	98	72	22,000	12,400	20.07	25.93	442	72	1.5	41
1958....	152	100	80	20,500	13,100	21.03	24.00	431	71	1.5	47
1959....	191	..	..	20,000	13,300	20.37	23.62	...	75	1.5	55

*A supermarket is defined as a completely departmentalized store with at least the grocery department fully self-service and having a minimum of \$20,000 sales per week.

† Includes land, building, and fixtures but excludes parking lot and inventory.

‡ Data not available.

SOURCE: Super Market Institute, *Facts About New Super Markets* (Chicago: 500 N. Dearborn, annual issues, 1955-1958).

LITERATURE CITED

- BAIN, J. S.
1959. Industrial organization. Wiley and Sons, New York. (643 p.) P. 238.
- BOWRING, JAMES R., HERMAN M. SOUTHWORTH, and FREDERICK V. WAUGH
1960. Marketing policies for agriculture. Prentice-Hall, Inc., New Jersey. (276 p.) P. 79.
- BUNKERS, E. W., and W. W. COCHRANE
1957. On the income elasticity of food services. *Review of Economics and Statistics* 39:211-215.
- BUSINESS GUIDES, INC.
1948-1959. Directory of supermarkets and grocery chains (annual issues). New York.
- CLARKE, D. A.
1951. Costs, pricing, and conservation in wholesale milk delivery in Los Angeles. Unpublished Ph.D. dissertation, University of California, Berkeley. (163 p.) P. 33, 36.
- COMMERCIAL BULLETIN
1960. SMI gets tax ruling on depreciation. *Commercial Bulletin*, 1960 (Feb. 12). P. 6.
- DELOACH, D. B.
1960. Changes in food retailing—causes, effects. *Washington State University, Pullman, Agr Exp. Sta. Bull.* 619, p. 18-21.
- DUDDY, E. A., and D. A. REVZAN
1953. Marketing, an institutional approach. 2nd. ed. McGraw-Hill Book Co., Inc., New York. (644 p.) P. 23, 31.
- ENGEL, C. L.
1931. *In The encyclopedia of social sciences.* The Macmillan Co., New York. Vol. 5, p. 539, 540.
- ESTEY, M. S.
1955. Patterns of union membership in the retail trades. *Industrial and Labor Relations Review* 8 (4) :561, 562.
- FAIRCHILD PUBLISHING COMPANY, INC.
1957 and 1959. Financial manual of retail stores. New York. (95 p.)
- FEDERAL TRADE COMMISSION
1960. Economic inquiry into food marketing. Part I. U. S. Govt. Printing Office, Washington. (338 p.) P. 90, 91, 106.
- FOLZ, W. E.
1958. Merchandising policies and practices of large chain supermarkets in fresh fruits and vegetables and their implications to market structure. 1958 Proceedings of the Western Farm Economics Association. P. 29.
- FOOD TOPICS
1959a. Retailers weigh value of national, private brand. *Food Topics* 14 (16) :6, 7, 12-14.
1959b. Innovations, major changes mark endless flow of new products. *Food Topics* 14 (18) : 7.
- FORKE, O. D., and D. A. CLARKE, JR.
1960. Changes in milk delivery costs and volume-pricing procedures in California. Mimeographed Report 236, Giannini Foundation of Agricultural Economics, University of California, Berkeley. (42 p.) P. ii-iv.
- FORTUNE
1959. The Fortune Directory. (32 p.).
- FOX, K. A.
1953. The analysis of demand for farm products. U. S. Department of Agriculture, Technical Bulletin 1081. U. S. Govt. Printing Office, Washington. (90 p.) P. 70.
- GANT, D. R.
1959. Illusion in lease financing. *Harvard Business Review* 37 (2) :121-142.
- KAPLAN, A. D. H., J. B. DIRLAM, and R. F. LANZILLOTTI
1958. Pricing in big business. The Brookings Institute Press, Washington. (344 p.) P. 127-219.
- KAYLIN, S. O.
1959. Chain construction at new high. *Chain Store Age*, Western Grocery Executive ed., Jan. P. A-16.
- LAMB, R.
1960. The cost of advertising in food marketing, 1947-56. The Marketing and Transportation Situation, U. S. Department of Agriculture, Jan. P. 41, 42.

MITCHELL, J. P.

1959. Facts about steel—the official report. *Quoted in* U. S. News & World Report (Aug. 31) P. 98–103.

MUELLER, W. F., and L. GAROIAN

1961. Changes in the market structure of grocery retailing. University of Wisconsin Press. (215 p.)

NATIONAL ASSOCIATION OF RETAIL GROCERS

1959. The merger movement in retail food distribution, 1955–1958. National Association of Retail Grocers, Chicago. (29 p.) P. 1.

NATIONAL RESOURCES COMMITTEE

1939. The structure of the American economy. U. S. Govt. Printing Office, Washington. (2 Parts) Part 1, P. 6.

NELSON, P. E., and A. B. PAUL

1959. Ownership changes by purchase and merger in selected food industries. U. S. Department of Agriculture, Marketing Research Report 369, Washington. (23 p.) P. 15.

OGREN, K. E., and K. PARR

1955. Labor in the marketing of farm food products. Agricultural Economics Research 8 (2) : 47, 48.

PROGRESSIVE GROCER

1959. Super valu study. Progressive Grocer, New York. (113 p.) P. 23, 110.

SCHULTZ, T. W.

1957. The farm problem and its relation to economic growth and development, p. 8. *Included in* The Hearings of the Joint Economic Committee, 85th Congress, 1st Session, Policy for Commercial Agriculture. U. S. Govt. Printing Office, Washington. (864 p.)

SCOTT, F. E., and W. F. WILLIAMS

1959. Changing marketing channels for farm foods. The Marketing and Transportation Situation, U. S. Department of Agriculture, Oct. P. 21.

SPRIECEL, WILLIAM R.

1960. Principles of business organization and operation. Prentice-Hall, Inc., New Jersey. (592 p.) P. 45.

STIGLER, G. J.

1958. The economies of scale. The Journal of Law and Economics 1:54–77.

THIS WEEK MAGAZINE

1960. The big challenge in food marketing. July. P. 9, 23, 29.

U. S. CONGRESS

1959. Shopping centers, p. 215. *In the* Hearings of the Senate Select Committee on Small Business. U. S. Govt. Printing Office, Washington.

U. S. DEPARTMENT OF AGRICULTURE

1958. Special studies of marketing costs and practices. Marketing Research Report 240. (21 p.) P. 2, 3.

1959. Agricultural outlook charts, 1960. (78 p.) Table 9, p. 51.

1960. The farm income situation, Feb. P. 32.

U. S. DEPARTMENT OF COMMERCE

1946, 1947, 1948, 1951, 1953, and 1956. County business patterns, California, Oregon and Washington. U. S. Govt. Printing Office, Washington, 1958.

WALL STREET JOURNAL

1958. A & P's manners turn mild after epic tangle with trustbusters. (Dec. 22) P. 5.

1960. Food retailers cool toward mergers; some sell off acquisitions. (May 5) P. 1.

WILLIAMS, W. F., E. K. BOWEN, and F. C. GENOVESE

1959. Economic effects of U. S. grades for beef. U. S. Department of Agriculture, Marketing Research Report 298. (197 p.)

WILLIAMS, W. F., and E. UVACEK

1960. Pricing and competition on beef in Los Angeles. U. S. Department of Agriculture, Marketing Research Report 413. (114 p.) P. 32–37, 98–101.